

Brain-Flexing[?]

IQ Tests



Fraser
Simpson

Mantesh

Brain Flexing? IQ Tests

FRASER
SIMPSON

Orient 
Paperbacks
DELHI | MUMBAI | HYDERABAD

www.orientpaperbacks.com

ISBN 81-222-0371-X

1st Published in Orient Paperbacks 2004

Brain-Flexing IQ Tests

© 2002 Fraser Simpson

Published in arrangement with
Sterling Publishing Co., Inc. USA

Cover design by Vision Studio

Published by

Orient Paperbacks

(A division of Vision Books Pvt. Ltd.)
Madarsa Road, Kashmere Gate, Delhi-110 006

Printed in India at
Rakesh Press, New Delhi-110 028

Cover Printed at
Ravindra Printing Press, Delhi-110 006

Mantesh

Contents

Introduction	...	5
Test 1	...	7
Answers for Test 1		
Test 2	...	13
Answers for Test 2		
Test 3	...	19
Answers for Test 3		
Test 4	...	25
Answers for Test 4		
Test 5	...	31
Answers for Test 5		
Test 6	...	37
Answers for Test 6		
Test 7	...	45
Answers for Test 7		
Test 8	...	51
Answers for Test 8		
Test 9	...	59
Answers for Test 9		

Test 10	... 65
Answers for Test 10	
Test 11	... 71
Answers for Test 11	
Test 12	... 79
Answers for Test 12	
Test 13	... 87
Answers for Test 13	
Test 14	... 95
Answers for Test 14	
Test 15	... 103
Answers for Test 15	
Test 16	... 111
Answers for Test 16	
Test 17	... 117
Answers for Test 17	
Test 18	... 125
Answers for Test 18	
Test 19	... 133
Answers for Test 19	
Test 20	... 139
Answers for Test 20	
Test 21	... 145
Answers for Test 21	
Test 22	... 151
Answers for Test 22	

Introduction

Want to know how your brain measures up? You can go to a psychologist's office, pay lots of money, take a boring standardized test, and find out what you knew all along—that you're a genius. Or you can have fun with this book. You won't be able to get an official score, since despite the words 'IQ Tests' in the title, there has been no attempt to standardize these tests in the way a psychologist might. But who cares? If you were intrigued enough to pick up this book, then you must enjoy the idea of measuring your abilities even without an official scale. Or else you like puzzles.

If you're the puzzle type, I hope you'll find lots here to keep you entertained, including traditional IQ-book fare as well as other puzzle types. Every test has 15 questions, and if you want to use a time limit, give yourself exactly 30 minutes for each test. If you finish early, give yourself one extra point if you got at least 12 correct.

For a scoring system, you can use this rhyming chart:

- + 15 Well, I never. You're just too clever.
- 14 Wow! Nice going. Your brain is glowing!
- 13 You're not only smart ... you look the part!
- 12 As you can see, you only missed three.
- 11 A pretty good score, since you only missed four.
- 10 You did just fine. (Ten's better than nine!)
- 9 You did just great. (Nine's better than eight!)
- 8 At least take heart that you're not off the chart.
- under 8 Your mind was gone. (Was the TV on?)

The book's format has each test laid out first followed directly by the answers to the test. This way, you don't have to flip to the back to find the solutions. The tests aren't intended to get any harder or easier as you go through the book, but you'll probably find you'll get the hang of some of the repeated puzzle types as you go through. This may make your solving faster.

These 15-question tests are designed to fit into your schedule. Whether you're solving on a train or just in a comfy chair at home, I wish you a brain-stimulating and entertaining time.

Fraser Simpson



Test 1

1. Change one of the letters in one of the words in this sentence to make a word that fits in the blank.

Because of the flood, we ended up with water
all over the basement_____.

2. Fill in the next domino in this sequence.

E
85

77
H

K
69

61
N

Q
53

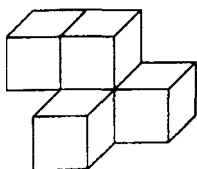
45
T

3. On Sunday, Jack had 63 toys. Every day, starting on Sunday, he gave away half of his toys plus half a toy. On what day of the week did Jack give away his last toy?

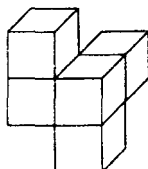
4. Change one letter in each of these four words and then respace the result without rearranging the letters to make a piece of tactical advice.

DIVA DEAL ICON SUER

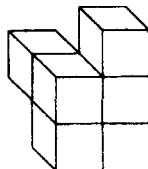
5. One minute ago, a clock that strikes only the hours just finished striking an hour. If the clock has struck a total of 21 in the last $2\frac{1}{2}$ hours, what hour did it just finish striking?
6. Which of A or B is equivalent to the original block rotated in three dimensions?



Original block



A



B

7. Add the same letter seven times (and appropriate spacing) to this string of letters and then respace the result to form four related words. You don't need to rearrange the letters in the string.

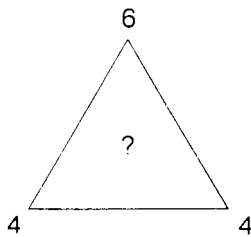
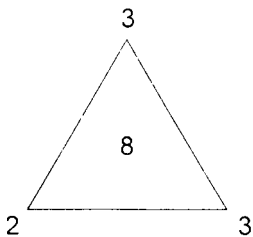
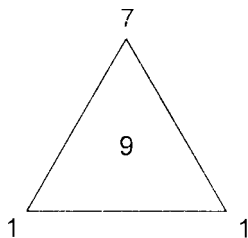
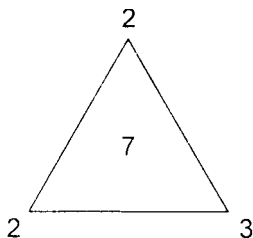
L A V I L E S A P U L A S A R U M O Y X

8. Rhyme time! If a shameless dried grape is a **BRAZEN RAISIN**, what would you call a little stone in the resistance movement?

9. Remove exactly half of the letters in the sentence below to reveal a two-word phrase described by the sentence itself. You don't have to rearrange any letters...the answer is in the correct order from left to right.

BE A BIG WINNER—NO SLOUCH—A FLUKE

10. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?



11. What comes next in this sequence?

O3 T3 T5 F4 F4 S3 S5 E5 ____

12. The number 865,469 is divisible by only one two-digit palindrome. Which one?

13. Three related words have been written in a row without spaces and with the vowels removed. What are the three words?

L P H N T R M D L L N T L P

14. Rearrange the letters of each of these three words to form three related words.

CARTELS _____

CRIMEAN _____

MICRONS _____

15. Insert the same four letters in each set of blanks to form flowers.

____ I E ____

____ A C ____

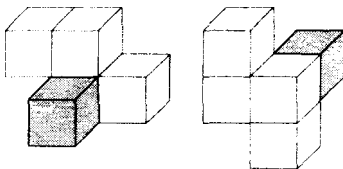
Answers for Test 1

1. Floor (changing the d in flood)
2.

W
37

 The letters increase by 3, and the numbers decrease by 8.
3. Friday. The pairs below show: (day, number of toys after donation) (Sun, 31), (Mon, 15), (Tue, 7), (Wed, 3), (Thu 1), (Fri, 0).
4. DIVIDE AND CONQUER
5. 8 o'clock. If the clock just finished striking, it has struck three consecutive hours in the last $2\frac{1}{2}$ hours: the one it just struck, the one it struck an hour ago, and the one it struck two hours ago. The sum is $6 + 7 + 8 = 21$.

6. A



7. Add seven C's to form these bones:
CLAVICLE, SCAPULA, SACRUM, COCCYX
8. REBEL PEBBLE
9. BEGINNER'S LUCK
10. 14.
Add the numbers outside each triangle to make the number within.
The calculation is $4 + 4 + 6 = 14$.
11. N4.
These are the initial letters of each number from one to nine followed by the number of letters its word contains. Since the word NINE starts with N and has four letters in it, the next term is N4.
12. 11.
If the number were divisible by any other two-digit palindrome, then it would also be divisible by 11. So the answer must be 11 only.
13. ELEPHANT, ARMADILLO, ANTELOPE
14. SCARLET, CARMINE, CRIMSON.
All of these are shades of red.
15. LILIES & LILACS.
Insert the letters L, I, L, S.



Test 2

1. WORST SHEET can be rearranged to make the two words SHORT & SWEET. Rearrange these letters to make a different pair of 'this & that' words.

NO INK, BESS

2. Match two of the lettered items with each picture in the bottom row by writing two letters in the blank. For example, if pictures A and B go together with the first picture at the bottom, write AB in that picture's blank.



A



B



C



D



E



F



G



H



3. What single letter can be inserted into each of these words to form three new words?

RAGE

SACK

AREA

4. Every morning, Gillian goes to the store and buys 6 dog treats, and every evening she gives 3 treats to her dog. If Gillian has 30 dog treats in her house on June 1 before going to the store, on which date in June will she first have 60 dog treats in the house?
5. Rearrange the italicized word in this sentence to make a word that will fill in the blank.

He was *fretful* that he might gain weight if he ate even one more chocolate _____.

6.

A
1

D
3

E
8

I
2

L
6

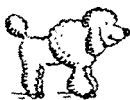
M
4

N
7

O
10

P
9

T
5



= 46



= ?

7. What Roman numeral completes this pattern?

_____, X, DL, C, MCL, DXV, I

8. Each of the six letters below stands for one of the numbers from one to nine, and no letter stands for the same number as another letter. Using the four clues, can you deduce the number represented by each letter?

A	B	C
D	E	F

Clues

A is the largest number in the top row across.

The value of E is 9.

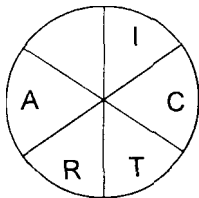
Each row across totals 12.

The middle column down totals twice the value of either of the two outside columns.

9. Word Ladder: Change SOWS to OINK, one letter at a time, in four steps. You must have a word at each step.

S	O	W	S
—	—	—	—
—	—	—	—
—	—	—	—
O	I	N	K

10. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



11. What number gives the same amount when it is added to 3 as when it is multiplied by 3?
12. What are the next two numbers in this sequence?
- | | | | | | |
|-----|-----|-----|-----|-----|-----|
| 697 | 690 | 345 | 338 | 169 | 162 |
| 81 | 74 | 37 | 30 | 15 | ___ |
13. What common English word contains the consecutive letter sequence XOP?
14. Here's a good one for crossword fans. Complete each set of blanks to make two common English words.

_ P _ R _ A _ H _ M _ R _ L _ A

15. Remove the first letter from the answer to the first clue to get the answer to the second clue. The four letters removed spell a word. What is the word?
- Mountaineer/supple and lithe
 - Stature/number of sides on a stop sign
 - Fruit with a navel/canon's distance
 - Drain fixer/cut wood

Answers for Test 2

1. SKIN & BONES
2. CF, AH, EG, DB
hook (C), line (F), and sinker; lock (A), stock (H),
and barrel; bacon (E), lettuce (G), and tomato;
rock (D), paper (B), and scissors
3. N. The three words formed are RANGE, SNACK,
and ARENA.
4. June 9. Although Gillian gains 3 treats per day,
the date on which she first has 60 teats in the
house is the day after she was left with 54 treats,
because her morning purchase raises the number
of treats in the house to 60. She had 30 treats left
on the evening of May 31. In 8 days, gaining 3
treats per day, she has 54 treats in the evening.
The next morning, June 9, she buys 6 more to
bring the total to 60 for the first time.
5. Truffle
6. 30. Add up the values for each letter in the word.
POODLE = $9 + 10 + 10 + 3 + 6 + 8 = 46$
DALMATIAN = $3 + 1 + 6 + 4 + 1 + 5 + 2 + 1 + 7 = 30$

7. IV. The entire pattern is a palindrome.

8. If each row across totals 12, then the sum of all six numbers is 24. Since the middle column is half the sum of all six numbers, it totals 12. Since $E = 9$, we know that $B = 3$. In the bottom row, the sum is 12, and since $E = 9$, the values of D and F must be 1 and 2 in some order. The outside columns add up to 6, so A and C are the numbers 5 and 4. But A must be the largest number in its row, so $A = 5$, $C = 4$, $D = 1$, and $F = 2$.

A 5	B 3	C 4
D 1	E 9	F 2

9. SOWS, SONS, SINS, SINK, OINK

10. TRAGIC

11. $1\frac{1}{2}$.

We need $3x = x + 3$, so $2x = 3$, or $x = \frac{3}{2}$ (or $1\frac{1}{2}$)

12. 8 and 4.

Subtract 7, divide by 2, subtract 7, divide by 2, and so on. Thus, the calculation is $15 - 7 = 8$, and then $8 \div 2 = 4$.

13. Saxophone

14. APPROACH & UMBRELLA

15. CHOP. (c)limber, (h)eight, (o)range, (p)lumber



Test 3

1. Circle one letter in each word below that can be changed to another letter to make a new word. You must use the same replacement letter in each word. The letters you circle form a five-letter word. Use the same replacement letter with this word to make a final five-letter word. What's the final word?

CHEAT

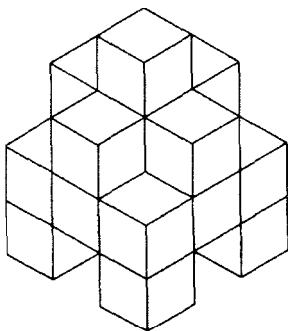
LATER

OPINE

CLONE

PUREE

2. If the stack of blocks pictured here looks the same from all four directions, what is the maximum number of blocks that could be used to build it, based on what you can see from this angle?



3. Put the same pair of letters in both blanks to make a word. (For example, _ _ S E _ _ L L becomes BASEBALL.)

_ _ T R _ _ C H

_ _ S T _ _ N E

_ _ M A _ _ E S

_ _ T A _ _ A N

4. Fran scored 76 on her first three tests of the year. What would she have to score on the fourth test to have an average of 81 on these four tests?

5. Rise to the challenge: What is the next word in this sequence?

STARE, ASSET, TASTE, SAUTE, STAVE,
WASTE, TAXES, _____

6. Insert antonyms into the blanks to make two new words.

C _ _ _ _ _ A U G _ _ _ _ _

7. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D









8. What seven-letter word completes this analogy?

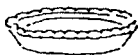
RIFFING is to GRIFFIN as ELATING is to _____

9. What letter comes next?

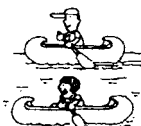
X W U R N I _____

10. What type of pipe can be represented by LEAFLET in a cryptogram?

11. Solve these anagrams with the help of the pictures.



PUCTURES



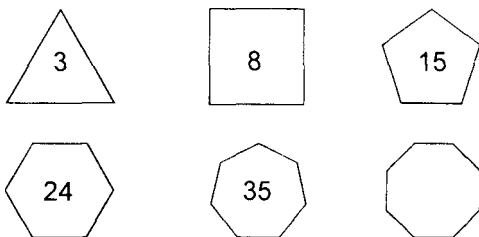
CESSATION



ENUMERATION

12. Get your calculator! If an EGG SHELL amounts to 77345663, then what vehicle is worth 461375?

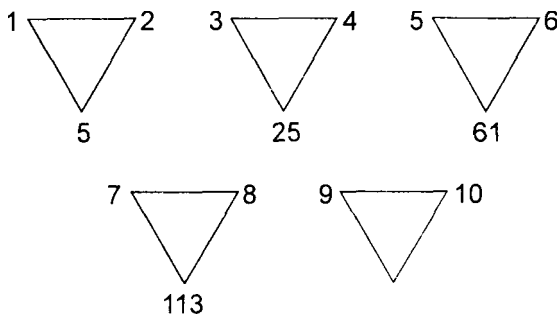
13. What number completes the last diagram?



14. Fill in the letters to make a common *one-syllable* word.

___ _ _ E E _ _ E _

15. What number completes the last diagram?



Answers for Test 3

1. STONE. The replacement letter is S. The words formed are cheSt, laSer, Spine, cloSe, purSe. The circled letters spell atone, which can be changed to Stone.
2. 19 blocks. There are four layers. From the top down, they could have at maximum 1 block, 4 blocks, 9 blocks, and 5 blocks.
3. ENTRENCH, POSTPONE, TOMATOES, CETACEAN
4. 96.
Method 1: Fran's total points collected on the first three tests are $3 \times 76 = 228$. But Fran wants to have a total of $4 \times 81 = 324$ for the four tests. She needs to score $324 - 228 = 96$.
Method 2: On each of the first three tests, Fran is short $81 - 76 = 5$ points of her goal. On the last test she must compensate for these and score $81 + (3 \times 5) = 96$.
5. YEAST. These are all anagrams of SEAT with one extra letter added. The letters added, in order, are R, S, T, U, V, W, X, Y.

6. cHATEau & gLOVE
7. BCDA. Words that rhyme:
fender/blender, carrot/parrot,
podles/noodles, stencil/pencil
8. GELATIN. Move the G from the end to the beginning.
9. C.
Move back 1, then 2, then 3, then 4, then 5, then
6. The letter 6 places before I is C.
10. CORNCOB has the same substitution pattern as
LEAFLET.
11. PIECRUSTS, CANOEISTS, MOUNTAINEER
12. SLEIGH.
Type each number into a calculator and then turn
the calculator upside down to read the words.
13. 48. Each number is the product of the number of
sides in the shape enclosing it, multiplied by its
position in the sequence. Since the octagon has 8
sides and is 6th in the sequence, the number inside
it should be $8 \times 6 = 48$.
14. SCREECHED
15. 181. Add the squares of the two numbers at the top
of each triangle to get the number at the bottom.
The calculation is $(9 \times 9) + (10 \times 10) = 181$.



Test 4

1. The three underlined words are planets in our solar system. What is the answer to the question?

PK STALK JULIE EX TOXIC
BOXICTKI BXER ICT KLA?

2. Unscramble the topic and the list.

Topic: MINALAS

SHORE
KESAN
MALEC
BRAZE
CONOCAR
NIPPOCURE
LOMALAIRD

3. Homophone pairs: If the principal hair on a horse's neck is the MAIN MANE, then what would you call a more disgusting supermarket owner?

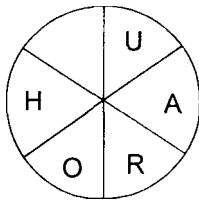
4. Think of a word for the first blank, and remove one letter from the end to form the word for the second blank. What are the two words?

I threw out all the _____ items around the tailor's shop, such as bent pins and _____

5. What is the next term in this sequence?

4 11 32 95 284 851 2552 _____

6. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



7. Add two lines to make this a true equation.

$$6 \quad 2 \quad = \quad 9 \quad 3$$

11. What single letter can be inserted into each of these words to form three new words?

PAIN MUCH MANY

12. A computer prints all of the numbers from 1 to 3456. How many times does it print the digit 5?

13. What 15-letter word is represented in our unusual country code?

Cuba Yip! Norway Greece Russia Vip! Turkey
Zip! Laos Vip! Tunisia Xip! Yip! Nigeria Spain

14. Add the same letter six times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

W O L G I R A E B U A L O E R R E T

15. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?

3	6
4	2

3	9
6	2

4	8
6	3

8	6
9	

Answers for Test 4

1. PLUTO (or JULIE).

The only five-letters are VENUS, EARTH, and PLUTO, and by using their shared letters (E, T, and U) you can match them up in the coded sentence and decode the remainder. The question reads, 'Is Venus, Pluto, or Earth farthest from the Sun?'

2. ANIMALS.

HORSE, SNAKE, CAMEL, ZEBRA, RACCOON, PORCUPINE, ARMADILLO

3. GROSSER GROCER

4. Needless, needles

5. 7655. The rule is $3 \times (\text{previous}) - 1$, so the calculation is $3 \times 2552 - 1 = 7655$.

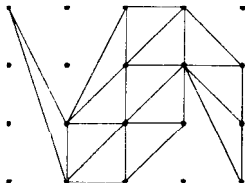
6. AUTHOR

7. $\frac{6}{2} = \frac{9}{3}$

8. PUB GAME

9. $6\frac{1}{2}$ square units.

One way to solve this is to divide up the grid into triangles. The area of a triangle is half its base times its height.



Each of the triangles below has an area of one-half square units, and there are 13 such triangles, so the total area is $13 \times \frac{1}{2} = 6\frac{1}{2}$ square units.

10. SKI. The three words formed are RISKING, SKIFF, and OILSKIN.
11. L. The three words formed are PLAIN, MULCH, and MANLY.
12. 993 times. There are 20 fives in the tens and ones places of one hundred numbers (10 in the ones place and 10 in the tens place). In each of the 500's, 1500's, and 2500's there are 100 more fives in the hundreds places. So from 1 to 3400 there are $(34 \times 20) + (3 \times 100) = 980$ fives. And from 3400 to 3456 there are 13 more fives, for a total of $980 + 13 = 993$ fives.
13. CONGRATULATIONS. The countries' first letters give the consonants. For the vowels,
Vip! = A Wip! = E (not used)
Xip! = I Yip! = O Zip! = U
14. Add six F's to form these animals:
WOLF, GIRAFFE, BUFFALO, FERRET
15. 12. The two numbers in the left column have the same product as the two numbers in the right column. The calculation is $8 \times 9 \div 6 = 12$.



Test 5

1. Some years look the same right-side-up as upside-down. Find an example of such a year in the 19th century.
2. Which of A, B, or C belongs in the empty box?



A



B



C

3. Think of three words meaning 'abandon' that also fit these definitions:
A. Purplish-red
B. Wasteland
C. Piece of yarn

4. Rhyme time! If the queen's long-eared hound is a REGAL BEAGLE, then what would you call only one shiver of excitement?
5. Which of the three choices, A, B, or C, goes with OCCUPATION so that it fits our matching scheme?

CLEVELAND & flat

ASTROPHYSICS & prize

LIFELINES & cat

ARCHIMEDES & rang

OCCUPATION & _____

A. deck

B. dock

C. duck

6. On each line, two six-letter words are woven together in order from left to right. Can you figure out the two words in each case?

VIPOURLEPTLE

BSIUZTZLTEER

SWINUTMERMER

7. 3F Y33 C3N F3G3R3 TH3S 33T, Y33 C3N
3GN3R3 V3W3LS!

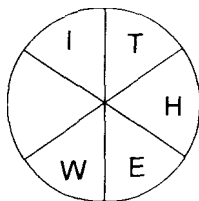
8. Word Ladder: Can you change HATE to LOVE, one letter at a time, in four steps? You must have a word at each step.

H	A	T	E
—	—	—	—
—	—	—	—
—	—	—	—
L	O	V	E

9. Give the fifth and sixth in this familiar sequence:

ST ND RD TH — —

10. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



11. Think of a word for the first blank, and change one letter to form the word for the second blank. What are the two words?

Picking and eating Golden _____ apples
made me _____ with joy.

12. Insert a five-letter fruit, one letter per square, across the third row of this grid so that five common four-letter words are formed reading down.

O	C	T	A	L
W	H	I	T	E
S	W	E	P	T

13. What is the next term in this sequence?

Q1 P2 R6 N24 V120 _____

14. Match the items on the left with those on the right.

A. Personal automobile	_____ redone
B. Demonstrator	_____ yellow
C. Jokester	_____ carmine
D. Show pain	_____ pungent
E. Blusher	_____ shower

15. Fill in the two letters in each pair to make words that rhyme.

Example: CRANE E TRAIN I

TOU ____	SCU ____
STE ____	WHI ____
PAS ____	WAI ____

Answers for Test 5

1. 1881

2. A.

The pictures represent a sequence of four-letter words that overlap by two letters. The sequence is Lima, mane, nest, star, arch, chin.

3. Maroon, desert, strand

4. SINGLE TINGLE

5. A. deck.

The lowercase word is a definition for a word hidden in the uppercase word. The hidden words are LEVEL, TROPHY, FELINE, CHIMED, and PATIO.

6. VIOLET & PURPLE
BUTTER & SIZZLE
SUMMER & WINTER

7. IF YOU CAN FIGURE THIS OUT YOU CAN
IGNORE VOWELS!

All of the vowels are replaced by 3's.

8. HATE, HAVE, CAVE, COVE, LOVE
HATE, HAVE, RAVE, ROVE, LOVE
9. TH & TH.
This sequence consists of the last pair of letters in the words first, second, third, fourth, fifth, sixth.
10. WRITHE
11. Delicious, delirious
12. LEMON.
The words formed are: OWLS, CHEW, TIME, ATOP, and LENT.
13. F720.
The letters move back and forth by powers of two:
-1 +2 -4 +8 -16.
The numbers multiply each time by a number one higher: $\times 2 \times 3 \times 4 \times 5 \times 6$. The letter 16 places before V is F. The number is calculated $120 \times 6 = 720$.
14. E D A C B
E. Blusher = red one
D. Show pain = yell 'ow!'
A. Personal automobile = car mine
C. Jokester = pun gent
B. Demonstrator = show-er
15. TOUGH & SCUFF
STEIN & WHINE
PASTE & WAIST



Test 6

1. Every letter in this 5×5 word square has been replaced by the same number everywhere it appears. Can you reconstruct the square with the help of the definitions? The definitions are not in the order of the words in the grid.

1	2	3	4	5
2	6	7	8	4
8	9	4	9	8
4	10	7	4	2
5	2	5	5	12

Floats, as through
the air
Pert
Greek letter
Runs
Hawaiian hello
Skin blemishes
Homeless dog
Turning part
Parties
Warning

2. What single letter can be inserted into each of these words to form three new words?

RAID SEAR COOT

3. What word is represented by these words?

see are why pea tea eye sea

4. What is the next number in this sequence?

5 6 10 17 27 40 56 75 ____

5. The definitions in each row define three words. To get the next word, rearrange the last one with an F. For example: BALE/FABLE/BAFFLE

A. Take a chair, clenched hand, rigid

B. Uses a bat, move slightly, certain fractions

C. Employs, angler, county officer

6. Each of the words below is misspelled. If the word is missing a letter or has an extra letter, write that letter in the blank. If a letter must be changed, write the correct letter in the blank. The letters in the blanks will form someone who needs good spelling.

mocasin _____

violincello _____

pavillion _____

gutteral _____

accomodate _____

innoculate _____

ideosyncrasy _____

consensus _____

diletante _____

7. We've removed all of the letters in the word PROVERB anywhere they appear in a well-known four-word saying. The leftover letters are in the correct order. Can you reconstruct the wise words?

L K F Y U L A

8. Rearrange the italicized word in this sentence to make a word that will fill in the blank.

Society *matrons* tossed their unsolicited manuscripts over the _____

9. Insert antonyms into the blanks to make two new words.

C _ _ _ _ T T _ _ _ G E

10. Match each seven-letter chunk in the first column with one in the second column so that you can remove a three-letter word from each to form a six-letter word row phrase, leaving an eight-letter word that's related. For example, BETEAVE and RABAGGE would go together to give TEABAG and BEVERAGE.

INFAIRL
AJETFFL
OUOLDTD
MECHOTH
VIPOTCT

ARODNIC
ABEDTED
UALPIES
USETENT
ATHATED

11. Which of the following, under the correct circumstances, could be Bob's father's sister's sister-in-law? (Choose as many as may apply.)

(a) Bob's mother (b) Bob's wife (c) Bob's daughter

12. Each of the six letters stands for one of the numbers one through six, and no number stands for the same number as another letter. Using the three clues, can you deduce the number represented by each letter?

A	B	C
D	E	F

$$(B \times B) + B = A$$

$$A + C + E = 14$$

C, D, E, F are in decreasing order.

13. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D



—



—



—



—

14. There are 360° in a circle. Through how many degrees does the minute hand of a clock turn in the time interval from 9:34 A.M. to 10:02 A.M. on the same morning?

15. Insert the 14 letters C C L L N N P P R R V V Y Y into the 14 blanks to form five words reading across.

— A —

— A — A

— A — A —

— A — A — A

— A — A — A —

Answers for Test 6

1.

W	A	F	T	S
A	L	E	R	T
R	O	T	O	R
T	H	E	T	A
S	A	S	S	Y

2. P.

The three words formed are RAPID, SPEAR, and COOPT.

3. CRYPTIC.

The words, when read aloud, spell CRYPTIC.

4. 97.

Add three more each time: +1 +4 +7 +10 +13 +16 +19 +22.

The calculation is $75 + 22 = 97$.

5. A. SIT, FIST, STIFF
B. HITS, SHIFT, FIFTHS
C. HIRES, FISHER, SHERIFF

6. COLUMNIST

moCasin	C
violOncello	O
pavilion	L
guttUral	U
accomModate	M
inoculate	N
idIoSyncrasy	I
conSensus	S
diletTante	T

7. LOOK BEFORE YOU LEAP

8. Transom

9. cLOSEt & tWINge

10. AIR BED, inflated
JET SET, affluent
OLD HAT, outdated
HOT ROD, mechanic
POTPIE, victuals

11. All three.

Bob's mother always works. If Bob marries his father's sister's husband's sister, then Bob's wife works. If Bob's daughter marries Bob's father's sister's husband's sister, then Bob's daughter works.

12.

A 6	B 2	C 5
D 4	E 3	F 1

If $A + C + E = 14$, then A, C, E must be 6, 5, 3 in some order.

If $B = 1$ then $(1 \times 1) + 1 = 2$, and A cannot be 2. So $B = 2$ and $A = (2 \times 2) + 2 = 6$. The numbers C, D, E, F are 5, 4, 3, 1.

13. DCAB

Each word pictured drops its labeled letter to make a new word:

ch(a)in, lim(b)o, dun(c)e, bri(d)e

14. 168° .

Since there are 360° in a circle and 60 minutes in an hour, the minute hand moves 6° per minute. From 9:34 A.M. to 10:02 A.M. is 28 minutes, so the minute hand turns $28 \times 6^\circ = 168^\circ$.

15. RAY

LAVA

CANAL

PAPAYA

CARAVAN

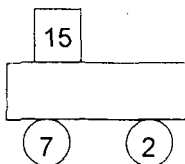
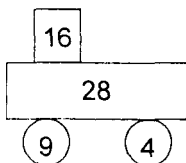
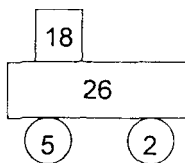
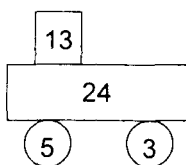


Test 7

1. What are the next two letters?

S E M I T M W Q T U F _ _

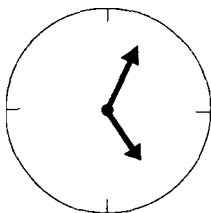
2. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?



3. We've taken three related words and changed one letter in each. What were the original three words?

LAUGHTER PIECE BROTHEL

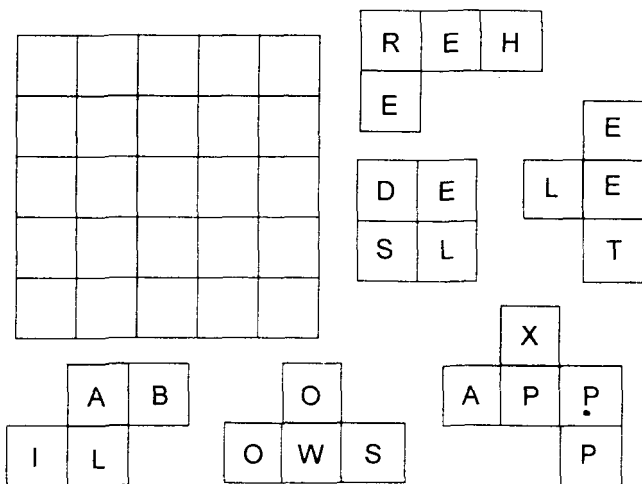
4. If this clock is turned upside down and held in front of a mirror, what time is reflected?



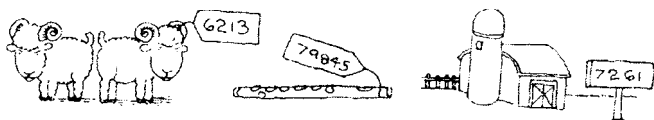
5. What number goes in the blank?

9, 61, 52, 63, 94, —, 18

6. Place the jigsaw pieces into the tray to make five words reading across and five different words reading down. The pieces fit together with no overlap.



7. How's your code-breaking ability?



8. Find the eleven numbers from ZERO to TEN in this grid. Each word is in a straight line horizontally, vertically, or diagonally. The leftover letters spell a bonus word. What is this word?

O	C	Z	O	T	T
E	N	U	E	H	R
N	N	E	G	R	U
T	F	I	V	E	O
N	E	T	N	E	F
O	W	T	X	I	S

9. Think of a word for the first blank, and write its homophone in the second blank. What are the two words?

I _____ not be happy if you were to burn all
of the chopped _____ in tonight's fire.

10. What single letter can be inserted into each of these words to form three new words?

BRED

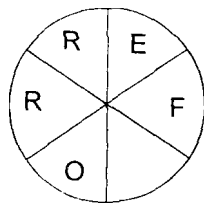
BORN

FLAT

11. Add the same letter eight times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

R O N O D N E R D U M L T H U M

12. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



13. A pencil and eraser together cost \$2.60. The eraser costs \$2.00 more than the pencil. How much does the pencil cost?
14. This is a list of eight-letter birds in a simple substitution code. Can you crack the code and identify the birds?

H N G B N Z	H S H P N N
D M K H N G	U M Y F L I
N Z L N K I	F L Y I N G
A N S H M G	A S Z P I R

15. Fill in the blanks to form two different common words.

— — — A N S E — — — A N S E

Answers for Test 7

1. Y and S. There are two sequences interwoven. One is the initial letters of the days of the week: S M T W T F S. The other increases by four each times: E I M Q U Y.
2. 16. (Smokestack – left wheel) $\times$ right wheel = body
The calculation is $(15 - 7) \times 2 = 16$.
3. DAUGHTER, NIECE, BROTHER
4. 5:05
5. 46. These are the perfect squares 9, 16, 25, 36, 49, 64, 81 written backward.

6.

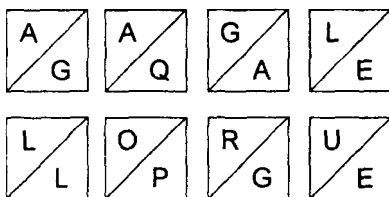
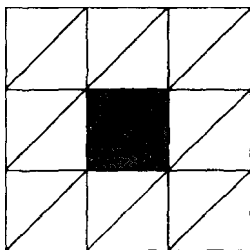
R	E	H	A	B
E	X	I	L	E
A	P	P	L	E
D	E	P	O	T
S	L	O	W	S

7. MASTERFUL. Since RAMS = 6213, FLUTE = 79845, and FARM = 7261, you can figure out our number-letter matching scheme and write the letters in numerical order. The word spelled is MASTERFUL, which describes your code-breaking ability if you got that answer.
8. The leftover letters spell COUNT.
9. Woul, wood
10. O. The three words formed are BORED, BORON, and FLOAT.
11. Add eight I's to form these periodic table elements:
IRON, IODINE, IRIDIUM, LITHIUM
12. ROFFER
13. 30 cents. Remove \$2.00 from \$2.60 and the remaining \$0.60 must be split between the eraser and the pencil. So the eraser costs \$2.30 and the pencil costs \$0.30.
14. CONDOR
FALCON
ORIOLE
TOUCAN
CUCKOO
MAGPIE
PIGEON
TURKEY
15. CLEAVE, EXPANSE.



Test 8

- Place the eight tiles into the grid so that four six-letter words are formed, two reading across and two reading down.



- Move one digit to make this equation true:

$$1\ 2\ 2 = 1\ 4\ 4$$

3. Circle one letter in each word below that can be changed to another letter to make a new word. You must use the same replacement letter in each word. The letters you circle form a five-letter word. Use the same replacement letter with this word to make a final five-letter word. What's the final word?

AFTER
REPAY
DAILY
GRAIN
STING

4. Which anagram is the odd one out?

SOLO PAIRS LOUSE ANIMAL ENEMY QUIT

5. How many times does the word YES appear in this grid in a straight line horizontally, vertically, or diagonally?

Y	S	Y	S	Y
Y	E	E	E	S
E	Y	S	Y	E
S	E	Y	E	S
Y	E	S	E	Y

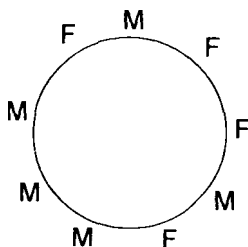
6. Find two different ways to make 24 using one digit three times and as many + signs as you need (but no other operation symbols). The digit isn't the same in the two different ways.

7. This word search in reverse should be as easy as ABC. Place the 13 words into the grid in straight lines horizontally, vertically, and diagonally. We've already placed all of the A's, B's, and C's as guides. When you've filled the grid, find a bonus seven-letter word created by the words you entered.

ACQUITS
ALLOW
ARIAS
ASCRIBE
BISQUE
BLAB
BUBBLE
MAIZE
QUENCH
QUILT
SPATTER
SCROLL
WATER

					B	
B						
			A			A
		B				
C			B			
	C					
A			A			

8. At this round table of males (M) and females (F), the number of people sitting next to a female is ____ and the number of people sitting next to a male is ____.



9. What letter in this grid is being described by the statement below the grid?

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y

The letter directly below the letter exactly between the letter just left of the letter two below G and the letter just below the letter to the right of B.

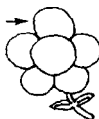
10. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D



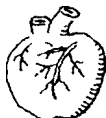
—



—



—



—

11. Unlike Joe, I was lying when I denied arguing against scrapping the proposal. Was Joe in favor of or against the proposal?

12. Lockers in a high school hallway are numbered consecutively from 678 to 789. How many lockers are in the hallway?

13. WABBYT HAT WBOOTWH CRYPTO:

C. ZBR'H HCLT ET

X. G'E SOBXCZDI RBH GH

W. YTDTHW Z GRYHTCZ

Z. PGRRTTO'Y SGWL

14. What four-letter word completes this analogy?

PERFORM is to PROM as COLLUDE is to _____

15. What letter/number combination goes in the blank?

A4 B6 C2 D9 E8 L7 M5 R3 _____

Answers for Test 8

1. This answer grid can also be flipped along the main diagonal so that GARGLE is the first word across.

G	L	O
A	L	P
R		A
G		Q
L	A	U
E	G	E

2. $12^2 = 144$

3. FLINT.

The replacement letter is L. The words formed are aLter, replY, daLLy, graiL, sLing. The circled letters spell faint, which can be changed to fLint.

4. ENEMY.

All are anagrams of world capitals except ENEMY, which is the anagram of a country, YEMEN. The other words rearrange to OSLO, PARIS, SEOUL, MANILA, QUITO.

5. 14 times

6. $8 + 8 + 8$ and $22 + 2$

7. The bonus word is **REBUILT**.

E	U	Q	S	I	B	S
B	Q	M	U	L	T	P
I	U	S	A	I	R	A
R	E	B	U	I	L	T
C	N	Q	B	L	Z	T
S	C	R	O	L	L	E
A	H	W	A	T	E	R

8. 6 people sit next to females.

7 people sit next to males.

9. Q.

The letter just left of the letter two below G is P.

The letter just below the letter to the right of B is H.

The letter exactly between P and H is L.

The letter directly below L is Q.

10. CADB

The words pictured are anagrams of each other:
petal/plate, beard/bread, skate/steak, earth/heart

11. Against.

I was against getting rid of the proposal. So Joe wanted to get rid of the proposal.

12. 112 lockers.

If the lockers are numbered from 678 to 789, then the 677 lockers numbered 1 to 677 are missing from a total of 789 lockers. The number remaining is $789 - 677 = 112$ lockers.

13. D (or Z).

Here's the translation:

CHOOSE THE CORRECT ANSWER:

A. DON'T TAKE ME

B. I'M PROBABLY NOT IT

C. SELECT D INSTEAD

D. WINNER'S PICK

14. CLUE.

The four-letter words appear in the odd-numbered positions in the seven-letter words.

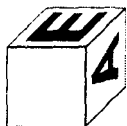
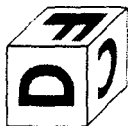
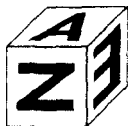
15. S1.

Put in numerical order, the letters spell SCRAMBLED.



Test 9

1. Here are four views of the same block. Draw the correct front face on the final block.



2. What word meaning 'foe' can be represented by FOOFARAW in a cryptogram?
3. Word Ladder: Change LADY to MISS, one letter at a time, in four steps. You must have a word at each step.

L A D Y

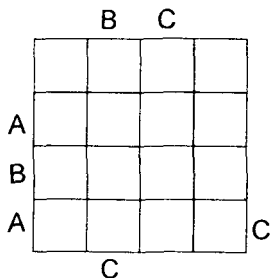
— — — —

— — — —

— — — —

M I S S

4. Every row and column of this grid contains the letters A, B, and C once each. Deduce the contents of the grid using the letters outside the grid as clues. Each exterior letter tells you the first letter you encounter in the grid when you enter the grid from that point. For example, in the second column from the left, the first letter is a B, but it may or may not be in the top square.

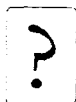
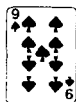
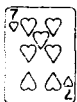
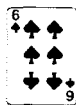
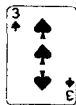


5. Insert antonyms into the blanks to make two new words.

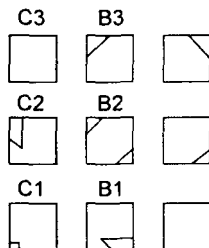
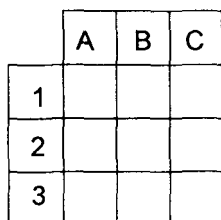
— — — — — T T O M I S C O N S — — — — —

6. This year, I made \$165 at my yard sale, which is an increase of 10% over last year. How much did I make last year?

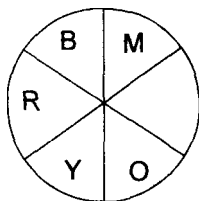
7. What playing card comes next?



8. What anagram of **MOONSTARERS** is a group of people who might be described as 'moon starers'?
9. Mentally transfer the nine pieces into the grid in the appropriate places. What picture appears?



10. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



11. The average of the ages of the five people in a room is 30. A sixth person joins the room and the average age rises to 32. How old is the sixth person?

12. Go from FORMER to LATTER in this word maze. The last two letters of one word are the first two letters of the next. Not every word will be used. What is the correct path of words?

CYCLIC	ICEBOX	NEATEN	SERAPH
DELUDE	IDIOCY	NEBULA	TACKLE
ENIGMA	IODINE	ONside	TAUNTS
EROTIC	LATTER*	OXYGEN	THWART
ERRATA	LENGTH	PHOTON	TSETSE
*FORMER	MADRID	PHYSIO	

13. Use these three words to make a phrase meaning 'officially.'

FORT HERE CORD

14. SHOWER TEST can be rearranged to make the two words SHORT & SWEET. Rearrange these letters to make a different pair of 'this & that' words.

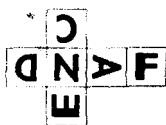
KIND OF ROD

15. Think of a word for the first blank, and remove its first letter to form the word for the second blank. What are the two words?

The _____ of the United States is the most famous _____ of the White House.

Answers for Test 9

1. 



2. OPPONENT has the same substitution pattern as FOOFARAW.

3. LADY, LADS, LASS, MASS, MISS

4.

C	B		A
	A	C	B
B	C	A	
A		B	C

5. FALSEtto and misconSTRUE

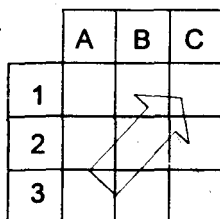
6. \$150. The calculation is $\$165 \div 1.1$.

7. The cards alternate hearts, spades, hearts, spades. The values follow the pattern +2, +1, +2, +1 ...



8. ASTRONOMERS

9. The picture is an arrow.



10. EMBRYO

11. 42 years old.

Method 1: If 6 people have an average age of 32 then the sum of their ages is $(6 \times 32) = 192$. If 5 people have an average age of 30 then the sum of their ages is $(5 \times 30) = 150$. The difference $192 - 150 = 42$ is the age of the sixth person.

Method 2: If the sixth person were 30, the average would stay at 30. For the average to raise to 32, each of the six people must receive on average 2 more years. Since these extra years all belong to the sixth person, the sixth person's age is $30 + (6 \times 2) = 42$.

12. FORMER, ERRATA, TAUNTS, TSETSE, SERAPH, PHYSIO, IODINE, NEBULA, LATTER

13. FOR THE RECORD.

Simply put the three words together and respace them.

14. FOOD & DRINK

15. President, resident



Test 10

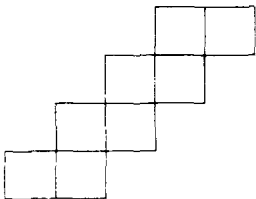
1. Remove three letters from DISPARAGE and rearrange the others to form an antonym of disparage.
2. Find the next three terms of this sequence:

128 61 Y 64 63 S 32 65 N 16 67 J 8 69 G — — —

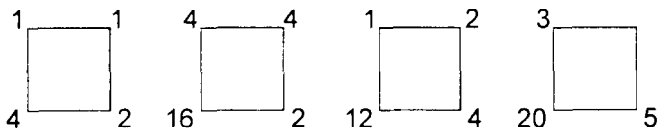
3. Can you rearrange the chess pieces so that this makes more sense?

B 
SIN 
S 
WEE 

4. The diagram is made of eight squares, all the same size. The perimeter of (distance around) any one of the squares is 100 inches. What is the perimeter of the entire shape, in inches?

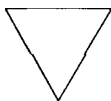
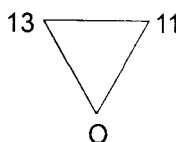
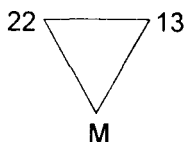
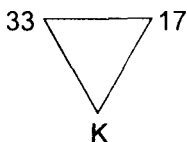
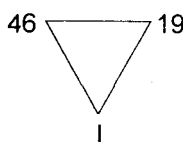
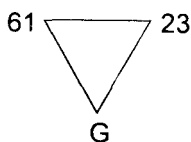
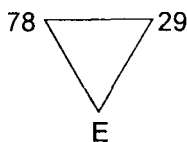


5. What five-letter card game becomes a card when you change its first letter?
6. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?



7. Rhyme time! If a dumb symbol of love is a STUPID CUPID, what would you call a person who damages a birthday cake topper?
8. On a balance scale, the following have equal weights:
 2 chocolate chunks = 20 jellybeans
 15 jellybeans = 6 licorice sticks
 How many chocolate chunks are needed to balance 20 licorice sticks?
9. What five-letter word completes this analogy?
 ASPARAGUS is to SUGAR as TRAGIC is to _____
10. Rearrange the italicized word in this sentence to make a word that will fill in the blank.
 He *claimed* his _____ expenses after his accident.

11. How should the last triangle be labeled?



12. What single letter can be inserted into each of these words to form three new words?

GAZE ONCE PROD

13. We've assigned different whole numbers to letters and then multiplied their values together to make the values of words. For example, If $F = 5$, $O = 3$ and $X = 2$, then $FOX = 30$.

Given that:

TEEN = 52

TILT = 77

TALL = 363

What's the value of TATTLE?

14. Add the same letter six times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

T P A Z M N S T N E P A L N Y X

15. Fill in the final number.

ZOOLOGIST = 4443

INITIATOR = 33314

WATERSHED = 122

BEEKEEPER = 22222

SUCCULENT = 552

EDUCATION = _____

Answers for Test 10

1. PRAISE

2. 4, 71, E.

There are three interwoven sequences here: 128, 64, 32, 16, 8, 4 (keep dividing by 2) 61, 63, 65, 67, 69, 71 (keep adding 2) Y, S, N, J, G, E (move 6 letters, then 5, then 4, 3, 2).

3. By matching the chess pieces up with the correct letters, you can make four words: bROOK, sinKING, sPAWN, weeKNIGHT.

4. 450 inches. There are 18 edges along the outside and each one is 25 inches. Every four edges make 100 inches, so 18 edges make 450 inches.

5. POKER becomes JOKER

6. 1.

If you add the top two numbers, you should get the same amount as dividing the bottom two numbers. The calculation is $(20 \div 5) - 3 = 1$.

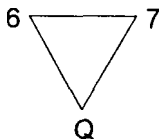
7. CANDLE VANDAL

8. 5 chocolate chunks. Making one ratio, 6 chocolate chunks = 60 jellybeans = 24 licorice sticks. So 1 chocolate chunk will balance 4 licorice sticks, which means 5 chocolate chunks will balance 20 licorice sticks.

9. CIGAR. The last five letters of the first word are reversed to make the second word.

10. Medical

11. The numbers at the top left corners decrease by 17, then 15, then 13, etc. The numbers at the top right corners are consecutive primes, descending. The letters move up by two each time.



12. U. The words formed are GAUZE, OUNCE, and PROUD.

13. TATTLE = 66. If TILT = 77, the letters can only represent 1, 1, 7, 11, so T must be 1. If TALL = 363 and T = 1, then ALL = 363. The factors of 363 are 3, 11, 11, so A = 3 and L = 11. If TEEN = 52, the factors of 52 are 2, 2, 13, so E = 2 and N = 13. We can now calculate: TATTLE = $1 \times 3 \times 1 \times 1 \times 11 \times 2 = 66$.

14. Add six O's to make these gems:

TOPAZ, MOONSTONE, OPAL, ONYX

15. 25134. The digits represent the vowels in the words: A = 1, E = 2, I = 3, O = 4, U = 5.

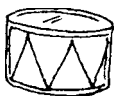


Test 11

1. Reconstruct this familiar warning.

YAP THE REC PEA ORA LOS IRR
INM HAN ERT CTS BJE O _____
_____R

2. Tom drove away from Bigtown 10 minutes after Janice, and overtook her in 20 minutes. If Tom drove at a speed of 90 mph, what was Janice's speed in mph?
3. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B

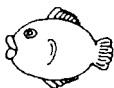


C



D





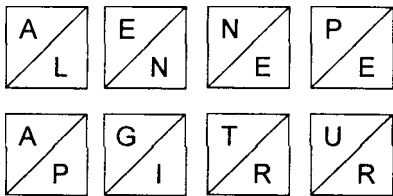
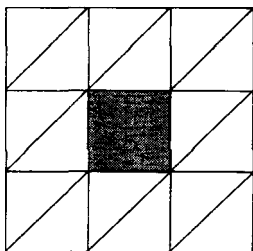




4. The names of three world countries have been written in a row without spaces and with the vowels removed. What are the three countries?

S T R S T N N G L

5. Place the eight tiles into the grid so that four six-letter words are formed, two reading across and two reading down.



6. What is the next term in this sequence?

2 9 11 20 31 51 82 133 _____

7. Change one letter in each of these two words to make a familiar saying.

HONEY TANKS

8. In chemistry, if you were to combine tungsten, iodine, sulphur, carbon, oxygen, and nitrogen with sulphur, iodine, and nitrogen, in what state would the result be?

9. Circle one letter in each word below that can be changed to another letter to make a new word. You must use the same replacement letter in each word. The letters you circle form a five-letter word. Use the same replacement letter with this word to make a final five-letter word. What's the final word?

ALLOT

ROUND

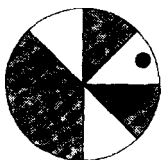
AIRE

DRAIN

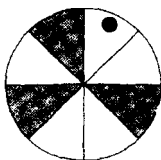
SLING

10. Among them, three children have 75 marbles. Jane has five times as many marbles as Paul, and Sam has five more marbles than Paul. How many marbles does Paul have?

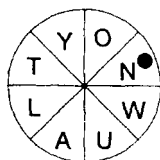
11. Ball A moves counterclockwise, one position at a time.
 If ball A lands on a shaded area, ball B moves two places counterclockwise.
 If ball A lands on an unshaded area, ball B moves one place clockwise.
 If ball B lands on a shaded area, ball C moves three places clockwise.
 If ball B lands on an unshaded area, ball C moves one place counterclockwise.
 Over the next six moves of ball A, what six-letter word is spelled out by ball C?



A



B



C

12. Circle six different letters in the alphabet below to make a cotton fabric reading from left to right.

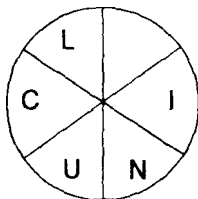
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

13. A $6 \times 6 \times 6$ cube is formed by gluing together 216 wooden blocks that are $1 \times 1 \times 1$. If the cube is resting on a table, what is the maximum number of $1 \times 1 \times 1$ blocks that you can see from any angle at any one time? (If you can see even one face of a $1 \times 1 \times 1$ block, then count it.)

14. Replace the blanks in the first word with two letters, and then reverse the order of the two letters and put them in the blanks of the second word.
Example: MACHQ MQCHA

QUI _ _ QUI _ _
_ LO _ T _ LO _ T
BU _ _ E BU _ _ E

15. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



Answers for Test 11

1. OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR

2. 60 mph.

Tom drove for 20 minutes ($\frac{1}{3}$ of an hour) at 90 mph, so he went 30 miles.

Since Janice drove the same 30 miles in 30 minutes ($\frac{1}{2}$ of an hour), her rate was 60 mph.

3. BDAC

Each pair of words makes a phrase of compound word: shoehorn, starfish, drumstick, plate glass

4. AUSTRIA, ESTONIA, ANGOLA

5. This answer grid can also be flipped along the main diagonal so that ENGINE is the first word across.

E N	T R	A P
G I		P E
N E	U R	A L

6. 215.

Each term is the sum of the previous two. The calculation is $82 + 133 = 215$.

7. MONEY TALKS

8. WISCONSIN is the 'state.'

Change each of the elements listed into its one-letter periodic table abbreviation.

9. TRAWL.

The replacement letter is W. The words formed are alloW, Wound, Wired, draWn, sWing. The circled letters spell trail, which can be changed to traWl.

10. 10 marbles.

If Paul has p marbles, then

$5p + p + 5 + p = 75$. So $7p = 70$ and $p = 10$.

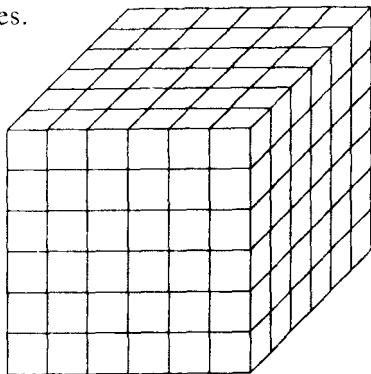
11. OUTLAY.

If S = shaded and U = unshaded, the landings are:

A	B	C
S	U	O
U	S	U
S	S	T
S	U	L
S	U	A
U	S	Y

12. CHINTZ

13. 91 cubes.



Method 1: You can see three faces at once. You can see one face only of 25 blocks on each of the three faces, for a total of 75 blocks. You can see two faces of 5 blocks along each of the three edges visible, for a total of 15 blocks. Finally, you can see three sides of the one corner block that is facing you. The total number of blocks you can see is $75 + 15 + 1 = 91$.

Method 2: If you remove all of the blocks you can see, you are left with a $5 \times 5 \times 5$ cube that you cannot see. There are $6 \times 6 \times 6 = 216$ blocks in all and you cannot see $5 \times 5 \times 5 = 125$ of them. So you can see $216 - 125 = 91$ blocks.

14. QUIET & QUITE
ALOFT & FLOAT
BUGLE & BULGE

15. NUCLEI



Test 12

1. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D



—



—



—



—

2. Rhyme time! What might a rhymer call clam soup mix?

3. Complete the eight words using the clues, which are presented in scrambled order. The words filled into the blanks will spell some advice.

T _ _ F

Hot dog topping

J O _ _ _ S

Take as one's own

_ _ _ _ A R D

House

E N _ _ W

Happy; jubilant

D _ _ C H

Hotel room

A _ _ P T

Roadside excavation

S U _ _ E

Minor argument

D _ _ _ _ I N G

Furnish

4. A palindrome is a number that reads the same when its digits are reversed. For example, 2552 and 30903 are palindromes. How many palindromes are there between 700 and 1700?

5. Match each word in the top row with a picture in the bottom row by writing letters in the blanks. One of the pictures provides a slight hint.

main _ _

ours _ _

four _ _

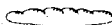
pain _ _



A



B

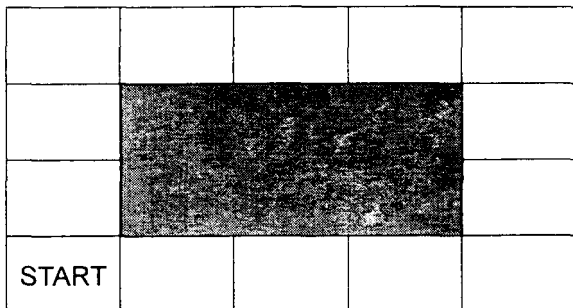


C



D

6. Kathy begins with her game token on the square marked **START** and moves clockwise around the board. Each turn she moves one more square than the number of squares she moved on the previous turn. On her first turn, she moves one square; on her second turn, she moves two squares; on her third turn, she moves three squares; and so on. On which turn does Kathy first land back on **START**?



7. Insert antonyms into the blanks to make two new words.

— — — — D Y B I — — T

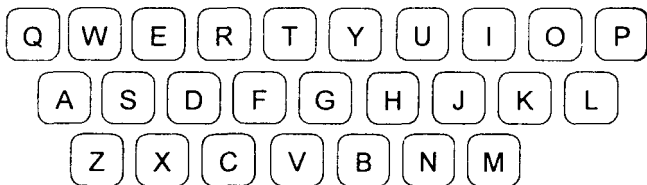
8. Think of a word for the first blank, and remove the last two letters to form the word for the second blank. What are the two words?

By not asking visitors to remove their shoes,
Bob and Jill essentially _____ the tracking
of mud throughout their third-floor _____.

9. What is the next term in this sequence?

101 97 91 83 73 61 47 ____

10. Seven different letters that touch each other on a typewriter keyboard can be *rearranged* to spell a seven-letter, two-word cutting tool. (You will need to rearrange the letters; the answer cannot be spelled out by moving consecutively from key to key.) What is this tool?



11. What five-letter word completes this analogy?

RAPSCALLION is to RASCAL as
COMPADRES is to _____

12. Dave buys \$200 worth of paint and Sue buys \$40 worth of paintbrushes. If they want to split costs equally, how much money does Sue owe Dave?
13. Which anagram is the odd one out?

OREAD HESRICH JONEY BROAH ZEILOID

14. Each of the four symbols in this grid represents a different number. Seven of the row and column totals are given. What is the total of the last column?

				155
				120
				115
				115
145	110	160	?	

15. What single letter can be inserted into each of these words to form three new words?

EASE LEAN MOON

Answers for Test 12

1. CDBA

Two meanings of each word are pictured: bowler, runner, pitcher, boxers

2. CHOWDER POWDER

3. IF YOU MUST DO IT, DO IT WELL.

The words are: TIFF, JOYOUS, MUSTARD, ENDOW, DITCH, ADOPT, SUITE, DWELLING.

4. 37 palindromes.

The three-digit patterns from 700 to 999 are 7d7, 8d8, and 9d9, where d can be replaced by any of the 10 digits from 0 to 9. This makes 30 palindromes. The four-digit patterns are 1dd1, where d can be any of the digits 0, 1, 2, 3, 4, 5, 6. This makes 7 more palindromes. The total is $30 + 7 = 37$ palindromes.

5. BDAC.

Although the words look like they're in English, each is the French word for its respective picture. The French bread provides a clue.

6. On the 7th turn.

The numbers in this diagram show the square landed on each turn:

2			3	6
1,5				
7				4

7. COMEdy & biGOt

8. Condone, condo

9. 31

Keep subtracting the next even number: $-4 -6 -8 -10 -12 -14 -16$.

The calculations is $47 - 16 = 31$.

10. FRET SAW

11. CADRE.

Each shorter word is a synonym of the longer word that is found in its correct order from left to right in the longer word.

12. \$80.

The total cost is \$240, so each person should pay \$120.

13. BROAH.

The anagrams are: ADORE, CHERISH, ENJOY, ABHOR, IDOLIZE.

14. 90 is the total.

You don't actually need to find the values of the symbols. Just add up the across totals ($155 + 120 + 115 + 115 = 505$) and subtract the sum of the three down totals given ($145 + 110 + 160 = 415$). The difference ($505 - 415 = 90$) must be the total of the last column. For the record, though:



= 15



= 25



= 30



= 30

15. R.

The words formed are ERASE, LEARN, and MORON.



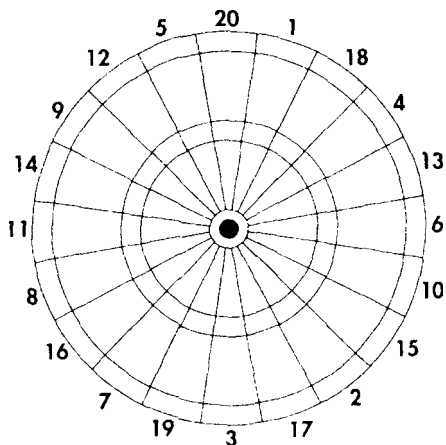
Test 13

1. If today is Sunday, what day of the week will it be 4400 days from today?

2. What letter logically fills in the empty space?

E F M U P L T L ____

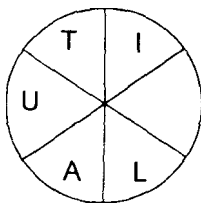
3. On this dartboard, how many numbers are in the longest string of prime numbers that appear consecutively along the edge?



4. Five teams are in a huge round robin tournament in which every team plays every other team three times. How many games take place?
5. This is a list of nine six-letter chemical elements in a simple substitution code. Can you crack the code and identify the elements?

MTOWRU	AIXXYO	IBPLYC
ATOMIC	WIFWCY	QWEJYO
AIMTES	CWANYE	QIFWRU

6. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



7. Match each word in the top row with a picture in the bottom row by writing letters in the blanks.

mare ____

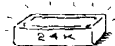
crow ____

writer ____

fool ____



A



B



C

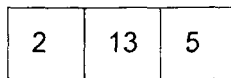
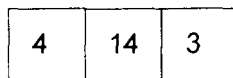
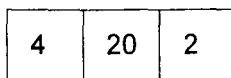
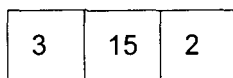


D

8. Insert a five-letter weapon (that is useless by itself) across the second row of this grid so that five common four-letter words are formed reading down.

B	O	O	Z	E
S	C	E	N	E
E	A	S	E	S

9. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?



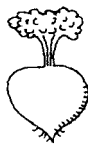
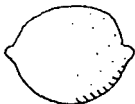
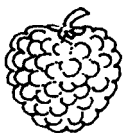
10. What is the next term in this sequence?

32 48 72 108 162 _____

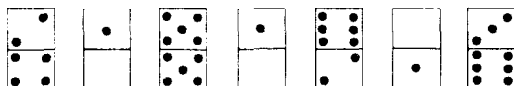
11. In each line, find a word that follows the first word and precedes the second word to form two phrases (such as **SECOND** _ _ _ _ **SPLIT** making 'second banana' and 'banana split' when **BANANA** is entered.) The three words you supply, in order, will form a familiar phrase.

PLASTER	__ _ _ _ _	ANCHOR
STEAM	__ _ _ _ _	MAIDEN
WEAK	__ _ _ _ _	FLU

12. Which is the odd one out?



13. Given that the key for this domino code is **AEGLMNR**, what two-word job does it spell?



14. Rearrange these three-letter chunks to make a proverb. You don't have to change the order of the letters in any of the chunks.

AKE HAS STE SWA TEM

15. Add the same letter seven times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

C I A M O C U M I G I G E R F E E L

Answers for Test 13

1. Thursday.

The division $4400 \div 7$ gives 628 remainder 4. This means that 628 weeks go by and there are 4 extra days. This puts us at Thursday.

2. Y.

These are the words EMPTY and FULL interspersed.

3. Five.

The numbers are 7, 19, 3, 17, 2. The number 15 is not prime because it is 3×5 .

4. 30 games.

It takes $4 + 3 + 2 + 1 = 10$ games for every team to play every other team once. So it takes 30 games for every team to play every other team three times.

5. BARIUM
CARBON
COBALT
COPPER
IODINE
NICKEL
OXYGEN
SILVER
SODIUM

6. RITUAL

7. CADB.

Each word in the top row takes an apostrophe and an s and then joins with the word represented by its picture to make a common phrase. The phrases formed are: mare's nest, crow's feet, writer's block, fool's gold.

8. ARROW.

The words formed are:

BASE, ORCA, ORES, ZONE, EWES.

9. 3.

Subtracting the product of the outside numbers from the middle number in the strip gives the circled number. The calculation is $13 - (2 \times 5) = 3$.

10. 243.

Each term is the previous one multiplied by $3/2$.

11. CAST IRON STOMACH.

CAST makes 'plaster cast' and 'cast anchor.'

IRON makes 'steam iron' and 'iron maiden.'

STOMACH makes 'weak stomach' and 'stomach flu.'

12. The lemon.

The other items are all red or traditionally red.

13. GENERAL MANAGER.

The key is that 0123456 = AEGLMNR. Change the number on each half of each domino to its corresponding letter. The top halves spell GENERAL and the bottom halves spell MANAGER.

14. HASTE MAKES WASTE

15. Add seven N's to make these seasonings:
CINNAMON, CUMIN, GINGER, FENNEL.



Test 14

1. Rearrange the italicized word in this sentence to make a word that will fill in the blank.

The doctor _____ the *educator* and the lawyer in the marathon.

2. The sum of the digits of the square of a one-digit number is 6 more than the number. What is the one-digit number?

3. Name a sport that is also a vegetable. _____

Name a sport that is also an insect. _____

Name a sport that is also an explorer. _____

4. An evening theater performance is scheduled every third day. What is the maximum number of performances that can take place over a 25-day period?

5. What three-letter chunk completes this set?

URY NUS RTH ARS TER URN NUS UNE _____

6. The same three-letter word can be inserted into all three blanks to form longer words. What word gets inserted?

DR _____ R SE _____ ED OUTL _____ D

7. Change one letter in each of the following words to make a familiar saying.

OFT IF TIGHT, BUT ON MINK

8. What six-letter word completes this analogy?

TIMBERLINE is to GERMANY as
COMPARISON is to _____

9. Change one letter in each of these four words and then respace the result without rearranging the chunks to make a familiar piece of advice.

DOGS ISAR NOVA SIDE

10. What is the next term in this sequence?

216 108 36 9 1.8 _____

11. Match two of the lettered pictures with each picture in the bottom row by writing their two letters in the blank. For example, if pictures A and B went together with the first picture at the bottom, you'd write AB in that picture's blank.



A



B



C



D



E



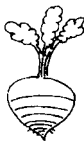
F



G



H



—

—

—

—

12. Wing has nine tasks — P, Q, R, S, T, U, V, W, and X — that he'd like to do over the months October to February, and he plans to do two tasks every month except December. In December, he does only one task.

He does S in November and W in February.

He does R three months after he does T.

He does V and X in the same month.

He does U in a month before the month he does P.

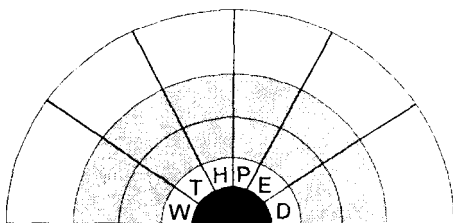
He does V in a month after the month that he does Q.

Which two tasks does Wing do in October?

13. What single letter can be inserted into each of these words to form three new words?

TACT MOST PLOT

14. Enter the answers to the clues radially inward, one letter per space. The last letters of the words, already entered, will help you place the four-letter answers, which are clued in no particular order. When you're finished, the shaded area will spell a two-word phrase that you'll be lucky to get.



Clues

Cover a birthday gift

Sunrise direction

Had debts

Curved masonry construction

Faith, _____, charity

Was aware of

15. A company has 21 employees consisting of regular workers, vice presidents, and one president. All of the employees chip in money for a charity drive. Regular workers pay \$7 each, vice presidents pay \$17 each, and the president pays \$30. If the company collects \$200 in all, how many regular employees are there?

Answers for Test 14

1. Outraced

2. 7.

The square of 7 is 49. The sum $4 + 9$ equals 13. And 13 is 6 greater than 7.

3. Squash, cricket, polo

4. 9 performances.

We can have a performance the first day, and then every third day after that, giving 8 more performances. The total is $1 + 8 = 9$.

5. UTO.

These are the last three letters of each of the names of the planets in our solar system:

MercURY, VeNUS, EaRTH, MARs, JupITER,
SatURN, UraNUS, NeptUNE, PLUTO.

6. AWE.

The words formed are DRAWER, SEAWEED,
and OUTLAWED.

7. OUT OF SIGHT, OUT OF MIND

8. FRANCE.

The capital of Germany (Berlin) is hidden in TIMBERLINE.

The capital of France (Paris) is hidden in COMPARISON.

9. DO AS I SAY, NOT AS I DO

10. 0.3

Divide by 2, then by 3 , then by 4, then by 5, then by 6.

The calculation is $1.8 \div 6 = 0.3$.

11. CE BH DF AG

The words pictured in the top row get inserted into the words pictured in the bottom row to make new words or phrases. b(egg)ar, pi(rat)e, t(urn)ip, w(ant)ad

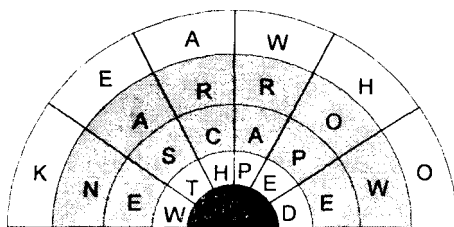
12. Q and U.

R is three months after T, so T and R are in October & January or in November & February. But they can't be in October & January because then V and X cannot be in the same month. Now V & X are either in October or Januray. If they're in October, then there is no month in which Q is performed, so V & X are done in January. This puts P in December and Q & U in October.

13. I.

The words formed are TACIT, MOIST, and PILOT.

14. The phrase is NARROW ESCAPE.



15. 17 regular employees.

Not including the president, the company collected \$170 from 20 employees. If r is the number of regular employees and v is the number of vice presidents, then $r + v = 20$ and $7r + 17v = 170$. Solve by elimination or substitution to find that $r = 17$.



Test 15

1. Match each expression below with one of the lettered pictures.

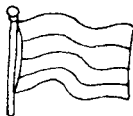
_____ put out to sea
_____ fits like a glove
_____ based on a true story
_____ have a nice day
_____ like it or not



A



B



C



D



E

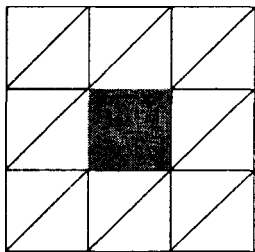
2. AHW EVES-ETTEL ROW NINAEM 'SENISUB
TAICOSSA' LIW MOCEB EHTONA

ROW NINAEM 'RUTPAC' EHW OY VOMER TI
ANIF ETTTEL NA RUT I RAWKCAB?

3. The same pair of letters can be inserted side by side into each of these four words, forming a new words each time. What pair of letters is it?

DIVER
PRUDE
GRAVY
TANGO

4. Place the eight tiles into the grid so that four six-letter words are formed, two reading across and two reading down.



5. The houses on one side of a street are numbered with consecutive *even* numbers. If the house numbers start at 28 and end at 130, how many houses are there on this side of the street?
6. Insert antonyms into the blanks to make two new words.

ORC _ _ _ _

QU _ _ _ _

7. A six-card shuffling machine always rearranges the six cards in its hopper in the same way every time you press its button. The cards in the hopper start out in this order:



After one push of the button, the cards are in this order:

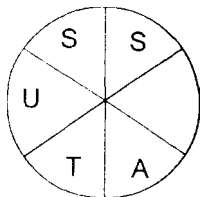


What is the fewest number of times you must now push the button to get the cards back into their original consecutive order?

8. OTHER STEWS can be rearranged to make the two words SHORT & SWEET. Rearrange these letters to make a different pair of 'this & that' words.

EMERALD FITS

9. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?

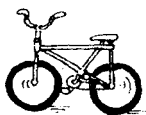


10. How many numbers between 1 and 1000 have the property that the sum of their digits is equal to 3?
11. What anagram of **COBRA** gives you the selections you might expect on a multiple-choice test?
12. What sport can be represented by **NEATNESS** in a cryptogram?

13.



is to



as



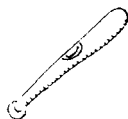
is to:



A



B

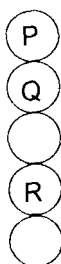


C

14. What are the next two terms in this sequence?

4438 4440 1110 1112 278 280 70 72 18 ____

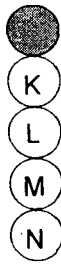
15.



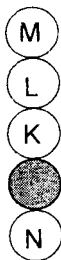
is to



as



is to:



A



B



C



D

Answers for Test 15

1. ECABD.

The initial letters of each phrase spell the answer. For example, the initial letters of 'put out to sea' spell POTS.

2. PARTNER.

Each word has its final letter removed and is written backward. The question reads: 'What seven-letter word meaning 'business associate' will become another word meaning 'capture' when you remove its final letter and turn it backward?' The answer is PARTNER, which becomes ENTRAP.

3. EL.

The words formed are:

DELIVER, PRELUDE, GRAVELY, and TANGELO.

4. This answer grid can also be flipped along the main diagonal so that GARISH is the first word across.

G A	Z E	B O
R I		R R
S H	A D	O W

5. 52 houses.
Consecutive even numbers from 28 to 130 is the same as consecutive numbers from 14 to 65. The number of numbers is 65 numbers minus the 13 numbers from 1 to 13. The calculation is $65 - 13 = 52$.
6. orchard and quEASY
7. Three times.
The ace and five simply switch back and forth, while the 2, 6, 3, and 4 are in a rotating cycle of four. The next three presses of the button give the following orders: A32654 then 5642A3 and finally A23456.
8. FIELD & STREAM
9. STATUS
10. 10 numbers.
They are: 3, 30, 300, 12, 21, 102, 120, 201, 210, 111
11. A, B, OR C
12. BASEBALL has the same substitution pattern as NEATNESS.
13. A.
The word 'sickle' is heard at the end of the word 'bicycle.'
The word 'meringue' is heard at the end of the word 'boomerang.'

14. 20 and 5.

Add 2, divide by 4, add 2, divide by 4.

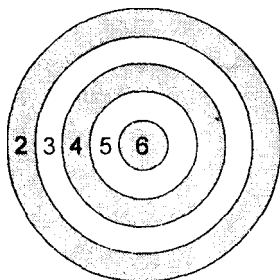
15. D.

Top circle moves to position 4. Second circle stays in place. Third circle is copied to positions 3 and 5. Fourth circle moves to position 1. Fifth circle does not appear.



Test 16

1. Robin shoots three arrows that all hit this target, and he attains a score of 13. How many different combinations give a sum of 13?



2. What is the next term in this sequence?

371 370 367 358 331 250 ____

3. Rearrange the words on the left to match the clues on the right, then enter the letters across, one letter per space. The shaded columns will spell something appropriate.

MARES					Use finger paints
FLIER					Hunter's gur
LATEX					Praise
EQUIP					Irritate
POSTS					Doesn't continue

4. If L. B. at F. means 'life begins at forty,' then what familiar saying is this?

B.L. than N.

(To which one may respond, using the same words: B. N. L.!)

5. Two six-letter words are coded in this letter grid. Each number in the code represents the sum of column and row headings of that letter. Each letter in the grid is used exactly once, so it's a good idea to cross off each one as you use it. What are the two coded words?

	1	2	3	4
1	M	O	R	E
2	T	H	A	N
3	E	V	E	R

Word A: 4 4 5 5 6 6

Word B: 3 7 5 2 3 4

6. What single letter can be inserted into each of these words to form three new words?

SAME

LATE

USER

7. What appendage is represented here?

THETA ILO FAMOUS E

8. Janice has five different pins and wants to choose two to wear with her outfit today. How many different combinations of two pins can she pick?

9. Add the same letter seven times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

O O A O G N A O F F E E U R A A O

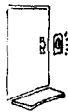
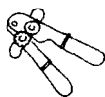
10. The four underlined words are all compass points. What is the answer to the question?

HLOIL AX CAMEL, GAVEL, URGE,
AM HUGE OG 'VW' AC PAGE PRWG?

11. Add one line to make a true equation. You may not change the equals sign.

$$611 = 7$$

12. Which is the odd one out?



13. This is a list of eight six-letter islands in a simple substitution code. Can you crack the code and identify the islands?

RXGGWE
RFAEJE
ISLAND
MXXBWW

MFEDMN
DWIWZS
UXMWUW
UXWBXE

14. Think of a word for the first blank, and remove the first three letters to form the word for the second blank. What are the two words?

By paying extra for a courier service, he _____
the delivery of the carefully _____ manuscript.

15. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?

2	5
5	8

2	6
3	7

4	7
6	9

9	
3	8

Answers for Test 16

1. Four combinations.

They are: (6, 5, 2), (6, 4, 3), (5, 5, 3), (5, 4, 4)

2. 7.

Keep subtracting the next power of 3: $-1 -3 -9 -27 -81 -243$.

The calculation is $250 - 243 = 7$.

3. The phrase is MIX IT ALL UP.

S	M	E	A	R
R	I	F	L	E
E	X	A	L	T
P	I	Q	U	E
S	T	O	P	S

4. Better late than never. (Better never late!)

5. HEAVEN & TREMOR

6. H.

The words formed are SHAME, LATHE, and USHER.

7. THE TAIL OF A MOUSE.

Simply respace the letters given.

8. 10 combinations.

If the pins are A, B, C, D, and E, the 10 combinations are AB, AC, AD, AE, BC, BD, BE, CD, CE, DE.

9. Add seven C's to make these drinks:

COCOA, COGNAC, COFFEE, CURACAO

10. NORTH (or CAMEL).

You can match the compass points with the underlined words by examining lengths and shared letters in NORTH, SOUTH, EAST, and WEST. The decoded question reads, 'Which of north, south, east, or west is 'up' on most maps?'

11. $6 + 1 = 7$

12. The can opener.

It's the only one you usually use two hands to operate.

13. BAFFIN

BORNEO

CYPRUS

HAWAII

HONSHU

SICILY

TAHITI

TAIWAN

14. Expedited, edited

15. 14. In each grid, the two diagonals add to the same amount.



Test 17

1. What one-word anagram of A CENT TIP might describe a cent tip?
2. Add the same letter twice to each word, making a new word. For example, given TALC, you could add two I's to make ITALIC. Write one copy of the letter you add into the blank. The blanks, when filled, spell something appropriate.

MILE	___
MINUS	___
SALLY	___
CLUED	___
WORDY	___
GLAND	___
WISER	___
VERGE	___
ICING	___
CLANS	___
3. I'm thinking of two phrases, each meaning 'to date.' They are both two-word phrases made up of a two-letter word followed by a three-letter word. What are the two phrases?

4. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



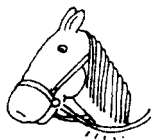
A



B



C



D









5. What word completes this analogy?

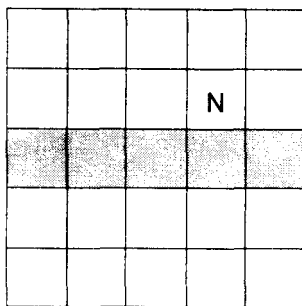
ALoud is to BARD as SYNCH is to _____

6. Rearrange these letters to make two words that are antonyms.

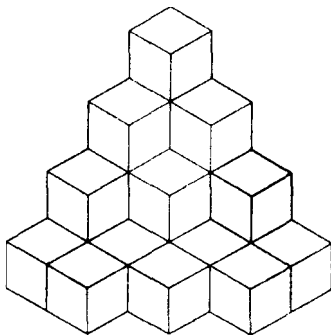
FOLDOUTS

7. Put the nine words, crossword-style, into this 5×5 grid. One letter has already been inserted for you. The shaded region will spell a five-letter word that does not appear in the word list. What is this word?

ALOHA
ALONE
ANISE
CHEST
HADES
LAMAS
LATCH
MOPED
SECTS



8. What common English word contains the consecutive letter sequence SPB?
9. What is the fewest number of blocks you need to add to make this shape into a cube?



10. What number and letter go on the last domino?

2
M

O
3

5
N

O
8

12
P

O
17

23
L

11. What does this say?

NE RC PY IT NO

12. Circle one letter in each word below that can be changed to another letter to make a new word. You must use the same replacement letter in each word. The letters you circle form a five-letter word. Use the same replacement letter with this word to find a final five-letter word. What's the final word?

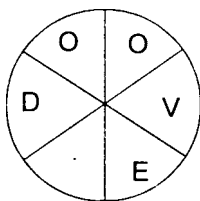
CHEST
PROSE
STREW
MEDIC
CHINK

13. Five people want a photographer to take pictures of every possible group of three of them. How many different photos will the photographer need to take?

14. Rearrange these three-letter chunks to make a saying. You don't have to change the order of the letters in any of the chunks.

ACA ING OKA TAK TMA YLO

15. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



Answers for Test 17

1. PITTANCE

2. DOUBLE TAKE

mile	middle
minus	ominous
sally	usually
clued	clubbed
wordy	worldly
gland	gleaned
wiser	twister
verge	average
icing	kicking
clans	cleanse

3. AS YET and SO FAR

4. DCBA

The pictures match as homophone pairs:

rain/rein, Nome/gnome, maze/maize, lynx/links

5. RYES.

The analogy is in homophones: ALLOWED is to BARRED (antonyms) as SINK is to RISE (also antonyms). We need a homophone of RISE to finish the analogy, so we fill in RYES. (Unfortunately, the word FLOAT does not have a homophone.)

6. LOUD and SOFT

7. The missing word is TOPIC.

Here's the square:

L	A	M	A	S
A	L	O	N	E
T	O	P	I	C
C	H	E	S	T
H	A	D	E	S

8. Raspberry

9. 41.

The top layer has 1 block and needs 15. The second layer has 3 blocks and needs 13. The third layer has 6 blocks and needs 10. The bottom layer has 13 blocks and needs 3. The number of needed blocks is $15 + 13 + 10 + 3 = 41$.

10.

Y
30

 The letters spell MONOPOLY. The numbers increase by 1, then 2, then 3, then 4, and so on.

11. ENCRYPTION.

We divided the word into pairs from the front and reversed the order of the letters in each pair.

12. SPEAK.

The replacement letter is A. The words formed are cheAt, Arose, strAw, mediA, chinA. The circled letters spell speck, which can be changed to speAk.

13. 10 photos.

If the 5 people are A, B, C, D, E then the photos needed are ABC, ABD, ABE, ACD, ACE, ADE, BCD, BCE, BDE, CDE.

14. A CAT MAY LOOK AT A KING

15. OVERDO



Test 18

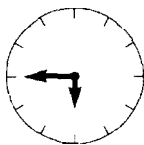
1. What single letter can be inserted into each of these words to form three new words?

JABS THEE ABLE

2. What number belongs below the last clock?



22



54



28



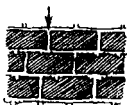
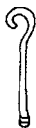
3. Insert antonyms into the blanks to make two new words.

U _ _ _ _ TH

SEA _ _ _ _ ING

4. Rhyme Time! Find the odd one out, based on the category.

Ca.eg-ry:



5. What is the next term in this math-based sequence?

23 21 24 19 26 15 28 11 30 7 36 ____

6. Change one letter in each word to form a familiar saying.

REVENUE IN SWEAT

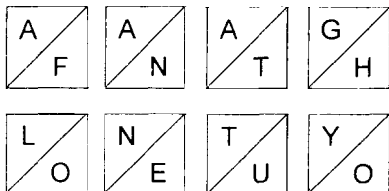
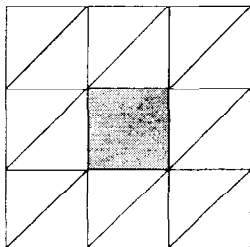
7. Put the digits from 1 to 9, one per square, in this grid so that multiplying the numbers across and down give the column and row products shown outside the grid.

			48
			180
			42
64	210	27	

8. A bookcase is 208 cm high and has six shelves on which to rest books. The top of the bookcase (i.e., the plank above the top row of books) is the same width as any of the other five shelves in the bookcase. However, the bottom of the bookcase (on which the bottom row of books rests) includes a decorative base that puts the top surface of the bottom shelf 10 cm off the floor. If the shelves inside the bookcase are all 2 cm thick and the vertical distances between the bookshelves are all equal, what is the height, in cm, of the largest book that you can just fit, standing up, in this bookcase?

9. *I'm always ninth in tournaments;
I'm third in contests, see?
I'm sixth in pageants, always sixth!
Now, what's the name for me?*

10. Place the eight tiles into the grid so that four six-letter words are formed, two reading across and two reading down.



11. Fill in the blanks to make two different words that mean 'catch.'

___ RA ___

___ RA ___

12. Remove one letter at a time from the word below to make smaller and smaller words. No rearranging is allowed. Can you reduce the word to a single letter?

SPARKLING

13. Rearrange the italicized word in this sentence to make a word that will fill in the blank.

They were *hustling* to get the tent set up before the _____ disappeared for the day.

14. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D

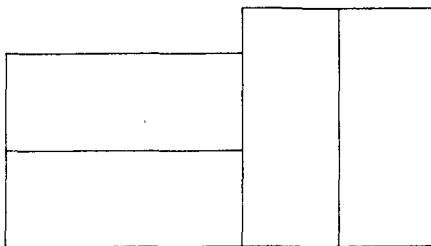








15. Four rectangles, each measuring 5 units by 11 units, are arranged as shown. What is the perimeter (distance around) the entire shape?



Answers for Test 18

1. M.

The words formed are JAMBS, THEME, and AMBLE.

2. 80.

The number underneath each clock is the product of the two numbers to which the hands point. Since the last clock has hands pointing at the 10 and the 8, the number underneath it should be $10 \times 8 = 80$.

3. uNEARth & seaFARing

4. The cane is the odd one out of these rhymes.

Category: money (honey)

nickel (pickle)

dime (mime)

quarter (mortar)

dollar (collar)

5. 5.

Alternately add and subtract primes: $-2 +3 -5 +7 -11 +13 -17 +19 -23 +29 -31$.

The calculation is $36 - 31 = 5$.

6. REVENGE IS SWEET

7. The 5 and the 7 must be at the intersection of the only products that are divisible by those two prime numbers. The first column must contain 2, 4, 8 to make a product of 64, and the last column must contain 1, 3, 9

8	6	1
4	5	9
2	7	3

to make a product of 27. The row products indicate the square containing the 8 and 9. Everything falls into place after that.

8. 31cm.

Remove the decorative base: $208 - 10 = 198$. Subtract 6 shelves (the top of the bookcase and five other planks): $198 - (2 \times 6) = 186$. Divide by 6, since there are 6 spaces for books: $186 \div 6 = 31$.

9. The letter N.

The letter N is the 9th letter in tournameNts, the 3rd letter in coNtests, and the 6th letter in pageaNts.

10. This answer grid can also be flipped along the main diagonal so that AFGHAN is the first word across.

A	L	A
F	O	T
G		T
H		U
A	Y	N
N	O	E

11. GRAB & TRAP

12. SPARKLING

SPARKING

SPARING

SPRING

SPRIG

PRIG

PIG

PI

I

13. Sunlight

14. CADB

Each word pictured changes its middle letter to form a new word:

perch/peach, peony/penny, mouse/moose,
house/horse

15. 64 units.

Starting from the bottom left corner and working clockwise, the calculation is $5 + 5 + 11 + 1 + 5 + 5 + 11 + 5 + 5 + 11 = 64$.



Test 19

1. What number goes in the blank?

823543 46656 3125 256 ____ 4 1

2. What word meaning 'ropes and chains on sailing vessels' can be represented by VESSELS in a cryptogram?

3.



is to



as



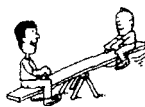
is to:



A



B



C

4. Join these fragments to form four nine-letter words.

ACK	GER
ARD	HOR
ATE	LEV
BOU	MES
CHE	SEB
CKM	SEN

5. Add the same letter six times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

S D A N G A N D A R G A Y P E R

6. Fill in the only common word of the given length that comes alphabetically between each of the two given words in a dictionary.

DAEMON

PANPIPE

TUITION

DAFFY

PANT

TULLE

7. In each line, find a word that follows the first word and precedes the second word to form two phrases (such as SECOND _ _ _ _ _ SPLIT making 'second banana' and 'banana split' when BANANA is entered.) The three words you supply, in order, will form a familiar phrase.

EYES

DOOR

SKID

HOUSE

BICYCLE

— — — — —

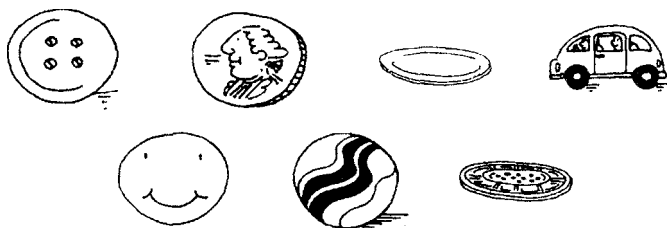
B E L T

8. I'm convinced that even brisk solvers will require a few minutes to figure out which two letters just do not appear in this exciting sentence.

9. Put these 10 three-letter groups in order so that each set of two adjacent groups forms a six-letter word.

BAL	TLE	LES	HER	SEX
NET	TET	SON	LAD	UNI

10. Which is the odd one out?



11. STREET SHOW can be rearranged to make the two words SHORT & SWEET. Rearrange these letters to make a different pair of 'this & that' words.

FEAR US, IRAQ

12. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?

2	16
4	2

2	36
6	3

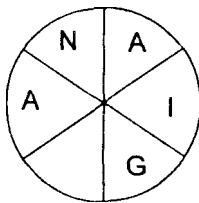
4	60
5	3

2	80
	8

13. What five-letter name completes this analogy?

DOLT is to GROW as COBRA is to _____

14. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



15. What common ten-letter word contains the letters IZM next to each other?

Answers for Test 19

1. 27.

The sequence is $7^7, 6^6, 5^5, 4^4, 3^3, 2^2, 1^1$.

The value of 3^3 is 27.

2. RIGGING has the same substitution pattern as VESSELS.

3. B.

A tom repeats to become a tom-tom. A can repeats to become the cancan.

4. BOULEVARD, CHECKMATE, HORSEBACK, MESSENGER

5. Add U six times to make these countries:
SUDAN, UGANDA, URUGUAY, PERU

6. DAFFODIL, PANSY, TULIP

7. FRONT ROW SEAT.

FRONT makes 'eyes front' and 'front door.'

ROW makes 'skid row' and 'row house.'

SEAT makes 'bicycle seat' and 'seat belt.'

8. Y and Z do not appear.
9. UNI/SEX/TET/HER/BAL/LAD/LES/SON/
NET/TLE
10. The car.
It's the only one that isn't round.
11. FAIR & SQUARE
12. 5.
The number in the upper-right square is the product of the numbers in the other three squares.
The calculation is $80 \div 8 \div 2 = 5$.
13. FREUD.
Each letter in the first word shifts forward three positions in the alphabet.
14. IGUANA
15. Quizmaster

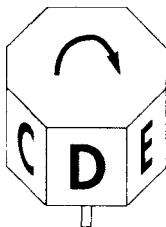


Test 20

1. Rhyme time! What would you call a grater that only grates a certain type of orange cheese?
2. Circle six different letters in the reverse alphabet below to make something that is full of holes and still holds water. The word reads from left to right.

ZYXWVUTSRQPONMLKJIHGFEDCBA

3. This octagonal wheel that turns clockwise has the letters A through H on consecutive faces, with letter D on the front face to start with. The wheel is turned first one position, then three positions, then five positions, then seven positions, then nine positions. What letter ends up on the front face?



4. In the 6/49 lottery, you choose six numbers from 1 to 49 inclusive and you win the grand prize if the six numbers selected in the draw match your six numbers. To check their ticket, a man gets a newspaper and reads to his wife the numbers that were chosen from the previous night's draw. But after he reads out only the first number, she lets out a cheer, knowing from that number alone that they've won. What was the number that the man read?
5. Put the seven three-letter tiles into the correct spaces to make a five-word truism. You must supply the breaks between the words in the final statement.

T G H I
 N E I O T

ARN	DSL	ESN	HOU
HSC	NGD	NGE	OOL

6. Jerry has a set of 11 cards, each card numbered with a different number from 20 to 30 inclusive. He wants to select three cards whose sum is 75. How many such sets of three are possible if the card labeled 24 must be one of the cards Jerry chooses?

7. What single letter can be inserted into each of these words to form three new words?

AIDE

PRIM

HATE

8. Find the seven related words (unscramble the first one).

CDEMOY
 D _ _ _ _ A
 H _ _ _ _ R
 M _ _ _ _ _ Y
 R _ _ _ _ _ E
 S _ _ _ _ I
 T _ _ _ _ _ R

9. Using 1 = A, 2 = B, 3 = C, etc., decipher our playing-card coding scheme and decode the final word.

			= ASIDES
			= CHECKS
			= ACIDic
			= ?

10. Put the same three letters in both sets of blanks to make two words that mean 'let out.'

R _ _ _ _

V _ _ _ _

11. What is the next term in this sequence?

4 7 12 20 33 54 88 143 232 376 _____

12. Beginning with the color **CARMINE**, remove two consecutive letters and rearrange the rest to form another color.

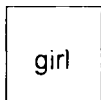
13. The body parts eye, ear, leg, arm, and toe all have three letters. Come up with three other parts of the body consisting of only three letters.

14. Insert the three-word title of a Shakespeare play into the blanks to form three new words.

TES _ _ _ _ _ Y S _ _ A

HE _ _ _ _ _

15. From the choices given, which word completes the sentence?



The choices are candy, chocolate, sweets, popcorn, or licorice.

Answers for Test 20

1. CHEDDAR SHREDDER
2. SPONGE
3. E. Since $1 + 3 + 5 + 7 + 9 = 25$, the wheel turns four full rotations and then one more position. This puts E on the front face.
4. 44. In the newspaper, lottery numbers are listed in increasing order, and the couple had chosen the six numbers 44, 45, 46, 47, 48, 49 for their ticket. When her husband read 44, she knew that the other five numbers had to match.
5. THOUGH SCHOOLING ENDS, LEARNING DOESN'T.
6. 4 sets of three cards.
If 24 is one of the cards, then the other two must add to 51. There four combinations not including 24 that add to 51: (21, 30), (22, 29), (23, 28), (25, 26)
7. S. The words formed are ASIDE, PRISM, and HASTE.

8. COMEDY, DRAMA, HORROR, MYSTERY,
ROMANCE, SCI-FI, THRILLER
9. CHIDED.
Each card represents two letters. The first letter is the position of the card's value in the alphabet, and the second is C, D, H, or S for its suit. The last word deciphers as:
3 of hearts = C + H
9 of diamonds = I + D
5 of diamonds = E + D
10. RENT & VENT
11. 609.
To get the next term, add the previous two terms and add one.
The calculation is $232 + 376 + 1 = 609$.
12. CREAM
13. Hip, jaw, rib (Other answers are possible.)
14. TESTIMONY, SOFA, HEATHENS.
The play is *Timon of Athens*.
15. Sweets.
Each word in the sentence is inside a shape with the same number of sides. The only words among the choices with six letters is 'sweets.'



Test 21

1. Which of these anagrams is the odd one out?

CAROB TORTE PRESENT SAP DREAD

2. What yellowish dessert item becomes a yellow condiment when you change its first letter?
3. How many times does the French word OUI appear in this grid in a straight line horizontally, vertically, or diagonally?

O	U	I	U	O
U	I	O	U	I
I	U	O	U	I
U	I	O	O	U
O	U	I	U	O

4. At the local theater, the cost of three adults and one child is \$23, and the cost of one adult and three children is \$13. How much does one adult ticket cost?

5. Match each picture in the top row with a picture in the bottom row by writing the corresponding letter in the blank.



A



B



C



D









6. Change one letter in each of the following words to make a familiar saying:

TO PEWS IN GOLD NETS

7. What one-word anagram of IN OVENS is a type of meat that may be cooked in ovens?

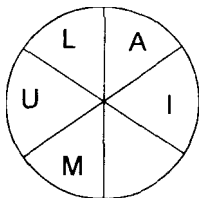
8. What is the next term in this sequence?

31250 12500 5000 2000 800 320 _____

9. Think of a 10-letter word for the first blank, and remove the middle two letters to form the eight-letter word for the second blank. What are the two words?

The thieves were put in a _____ position when the alarm went off just as they tried to take one of the most _____ artworks in the collection.

10. Fill in a letter to complete a six-letter word reading either clockwise or counterclockwise. What is the word?



11. Circle one letter in each word below that can be changed to another letter to make a new word. You must use the same replacement letter in each word. The letters you circle form a five-letter word. Use the same replacement letter with this word to make a final five-letter word. What's the final word?

PATIO
DECAY
GIANT
CHAIN
VITAL

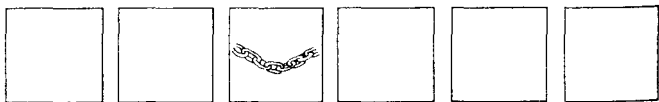
12. Working alone, Pipe A takes 6 hours to fill a tank and Pipe B takes 3 hours to fill the same tank. Working together, how many hours would it take the two pipes to fill the tank.

13. Insert antonyms into the blanks to make two new words.

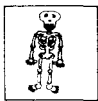
CL _ _ _ _

TH _ _ _ _

14. Arrange the five pictures below to form a chain in which each consecutive pair forms a compound word or two-word phrase, such as **FLOWER BED ROOM SERVICE** (flower bed, bedroom, room service). We've placed the **CHAIN** in the third spot to get you started.



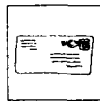
A



B



C



D



E

15. There are 1000 meters in a kilometer. If travel 40 meters in 6 seconds, what is my speed in km/h?

Answers for Test 21

1. TORTE.

All are anagrams of snakes except TORTE. The anagrams are: cobra, otter, serpent, asp, adder.

2. CUSTARD becomes MUSTARD when the C changes to M.

3. 11 times

4. \$7. If A is the cost of an adult and C is the cost of a child, then

$$3A + C = 23$$

$$A + 3C = 13$$

Multiply the first equation by 3.

$$9A + 3C = 69$$

$$A + 3C = 13$$

Now subtract the two equations.

$$8A = 56$$

$$\text{So } A = 7$$

5. CDAB

Remove the first letters of the words pictured to form new words: (p)runes, (w)easel, (d)river, (k)night

6. NO NEWS IS GOOD NEWS
7. VENISON
8. 128.
Each term is $\frac{2}{5}$ of the one before it.
9. Precarious, precious
10. ALUMNI
11. PRINT.
The replacement letter is R. The words formed are Ratio, decRy, gRant, chaiR, viRal. The circled letters spell paint, which can be changed to pRint.
12. 2 hours.
Alone, Pipe A fills $\frac{1}{6}$ of the tank per hour, and Pipe B fills $\frac{1}{3}$ of the tank per hour. Together, they fill $\frac{1}{6} + \frac{1}{3} = \frac{1}{2}$ of the tank in one hour. If they fill $\frac{1}{2}$ the tank in one hour, then they fill the entire tank in 2 hours.
13. clOVER & thUNDER
14. BEDAC (from left to right) SKELETON KEY
CHAIN LETTER BOMB SHELL.
15. 24 km/h.
If I travel 40 meters in 6 seconds, then I travel 24,000 meters in 3,600 seconds, which is 24 km in 1 hour.



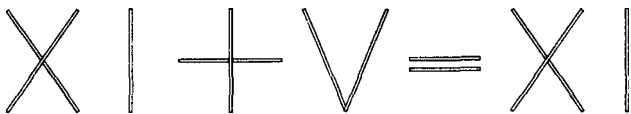
Test 22

1. What common seven-letter word contains the letters LH next to each other?

2. What five-letter word completes this analogy?

QUASH is to QUASI as ASSES is to _____

3. Move one stick to make this equation true. You are not permitted to change the equals sign.



4. What is the next term in this sequence?

875 874 866 839 775 650 434 _____

5. What common eight-letter word meaning 'overturns a boat' is something a baseball team outfitter needs to know?
6. Add the same letter seven times (and appropriate spacing) to this string of letters to form four related words. You don't need to rearrange the letters in the string.

L U M I N E A L E A A Y A E A C H

7. What letter completes the sequence?

R D P T D M B _

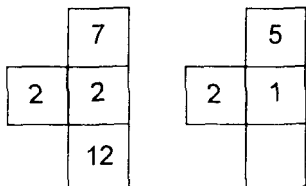
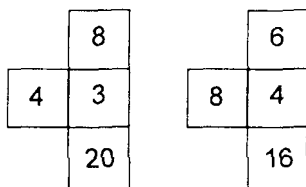
8. Which is the odd one out?



9. What single letter can be inserted into each of these words to form three new words?

SUNK LIED QUAY

10. The numbers in the diagrams combine in the same way to make correct arithmetic statements. What number is missing from the last diagram?



11. Three words that go together have been written in a row without spaces and with the vowels removed. What is this well-known triplet?

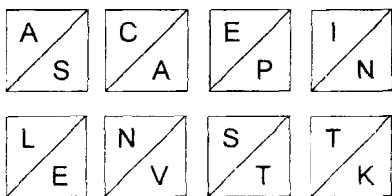
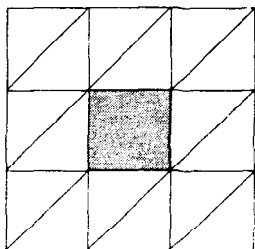
R N S T H R T

12. The three words coded below are clues to the placement of their letters in this grid. Each number in the code represents the sum of column and row headings of that letter. Can you place the letters in the proper places in the grid to spell a four-word proverb reading across?

	1	2	3	4	5
1					
2					
3					
4					

6 4 5 8 6 7 2 3 7 7 4 5 8 4 5 5 6 3 9 6
 L I N K I N G M I S T A K E H A T R E D

13. Place the eight tiles into the grid so that four six-letter words are formed, two reading across and two reading down.



14. This is a list of nine six-letter countries in a simple substitution code. Can you crack the code and identify the countries?

JWLQMZ

PWBBYB

ILOLCL

YLOLFL

MKWLBZ

SEWRBX

YXIWEK

REALMS

QLCJML

15. Circle one letter in each word in the list and replace it with one of the letters in the word **EXCHANGE**, forming a new word each time. Since you'll use each letter in **EXCHANGE** only once, it's a good idea to cross the letters off as you use them. The circled letters spell a target word. What is this word?

Replacement letters: E X C H A N G E

BERATE

SHAMUS

SETTLE

TALKER

CORTES

SERAPE

HEARTY

CANINE

Answers for Test 22

1. Bellhop

2. ASSET.

The last letter moves one letter forward in the alphabet.

3. VI + V = XI.

The equation represents $6 + 5 = 11$.

4. 91.

Keep subtracting the next larger perfect cube:

-1 -8 -27 -64 -125 -216 -343

The calculation is $434 - 343 = 91$.

5. CAPSIZES (cap sizes)

6. Add P seven times to make these fruits:

PLUM, PINEAPPLE, PAPAYA, PEACH

7. D.

If you move the letters one forward in the alphabet, they spell S E Q U E N C __. The letter D in the original list will complete the 'sequence.'

8. Kangaroo.

It's the only one that does not begin with P. The other pictures are: peas, pencil, piano, pipe, and pie.

9. K.

The words formed are SKUNK, LIKED, and QUAKY.

10. 3.

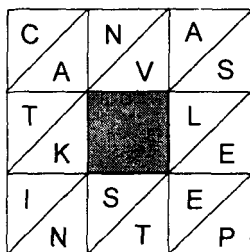
The product of the two numbers at the top of the vertical strip of three is the same as the sum of the other two numbers. The calculation is $(5 \times 1) - 2 = 3$.

11. EAR, NOSE, and THROAT

12.

	1	2	3	4	5
1	G	R	E	A	T
2	M	I	N	D	S
3	T	H	I	N	K
4	A	L	I	K	E

13. This answer grid can also be flipped along the main diagonal so that CATKIN is the first word across.



14. BRAZIL
CANADA
CYPRUS
GREECE
ISRAEL
KUWAIT
PANAMA
TURKEY
ZAMBIA

15. BULL'S-EYE is the 'target' word. The new words formed are: AERATE, SHAMES, SETTEE, TANKER, CORTEX, SCRAPE, HEARTH, CANING.

□□□

Check Your IQ

Ken Russell & Philip Carter pp 160

Here you can play with 400 IQ questions which will test your brain power, providing a keen challenge to your powers of deduction. Spot the link between a series of digits. Solve the anagrams. Interpret the shapes and symbols. And also see how your general knowledge measures up. You can treat the questions like an exam, with eight formal programmes. Or just enjoy the exercise of getting to grips with the classic test of thinking around the corners.

Test Your Math IQ

Steve Ryan pp 96

There are over 75 puzzles, involving numbers, geometric shapes, and topology, which range from head-scratching challengers to hair-pulling bafflers. You don't need any formal mathematical training to solve these, but be warned: Using both math and logic skills, you'll stretch your brain to the limit. By the time you finish the hardest puzzle, you'll be a math genius!

Flex your mental muscles on these demanding IQ tests.

2	5
5	8

2	6
3	7

4	5
6	9

9	
3	8

The numbers in the diagrams combine in the same way
to make correct arithmetic statements.

What number is missing from the last diagram?

Are you up to the challenge?

Come up with the answer to this one quickly:

What is the next number in this sequence?

4 11 32 95 284 851 2552 _ _ _ _ _

Whether you're solving these IQ tests in a
comfy chair at home, or preparing for an
upcoming mental challenge (may be an
examination or an interview) **you'll have an
intellectually-stimulating time.**

Mantesh

