

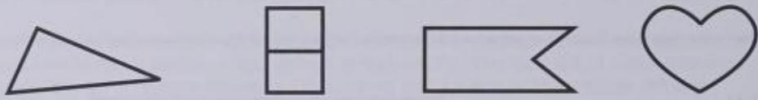
**VERSATILES MIDDLE  
GRADES CRITICAL-  
THINKING ACTIVITIES**

**THOMAS O'BRIEN**

**BOOK 3**

# Ginglemeisters and Bingeyboppers

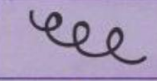






All of these creatures are ginglemeisters.



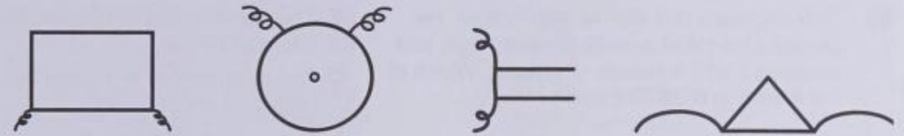
None of these creatures are ginglemeisters.



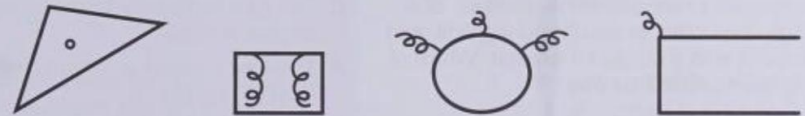
Which of these creatures are ginglemeisters?

1		<b>D</b>	Both	Neither
	K	L	G	H
2	<b>G</b>		Both	Neither
	I	H	A	F
3		<b>B</b>	Both	Neither
	B	K	I	H
4	<b>T</b>		Both	Neither
	E	K	F	O
5		<b>£</b>	Both	Neither
	C	H	A	O
6			Both	Neither
	A	L	G	E

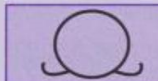
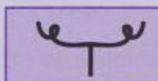
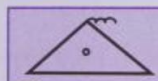
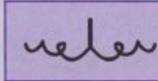

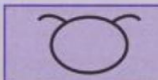
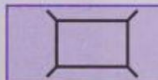
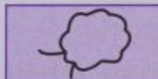
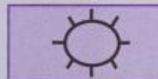
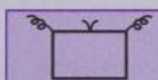

All of these creatures are bingeyboppers.



None of these creatures are bingeyboppers.



Which of these creatures are bingeyboppers.

7		<b>B</b>	Both	Neither
	E	K	H	L
8			Both	Neither
	B	I	K	H
9			Both	Neither
	K	H	J	I
10			Both	Neither
	F	I	L	C
11			Both	Neither
	D	L	A	F
12			Both	Neither
	L	K	B	A



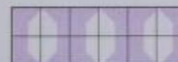


# Trading Places

Choose the best answer for each question.

- 1 Pablo writes a two-digit whole number. He changes his mind, erases the tens digit, and replaces it with a number 1 greater. Which of the following **MUST** be true?
- 2 Elena writes a two-digit whole number. She changes her mind, erases the ones digit, and replaces it with a number 1 greater. Which of the following **MUST** be true?
- 3 Niko writes a two-digit whole number. He changes his mind, erases the tens digit, and replaces it with a number 4 greater. Which of the following **MUST** be true?
- 4 Tameka writes a two-digit whole number. She changes her mind, erases both digits, and replaces each with a number that is 1 greater. Which of the following **MUST** be true?
- 5 Aman writes a two-digit whole number. He changes his mind and switches the units digit with the tens digit. Which of the following **MUST** be true?
- 6 Reena writes a two-digit whole number. She changes her mind, and she decreases the tens digit by 1 and increases the ones digit by 1. Which of the following **MUST** be true?
- E The new number is 10 more than the original number.  
C The new number is 1 more than the original number.  
F More information is needed.  
D The new number is 10 more than the original number.  
A The new number is 1 more than the original number.  
G More information is needed.  
D The new number is 40 more than the original number.  
I The new number is 4 more than the original number.  
J More information is needed.  
F The new number is 11 more than the original number.  
L The new number is 1 more than the original number.  
K More information is needed.  
B The new number is greater than the original number.  
C The new number is less than the original number.  
J More information is needed.  
E The new number is 9 more than the original number.  
B The new number is 9 less than the original number.  
F More information is needed.

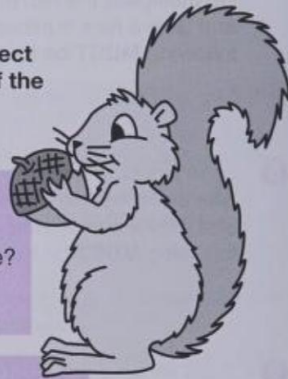
- 7 Marco writes a two-digit whole number. He multiplies the two digits of the number and gets a new number. Which of the following **MUST** be true?
- 8 Lynn writes a two-digit whole number. She adds the two digits of the number and gets a new number. Which of the following **MUST** be true?
- 9 Todd writes a two-digit whole number. He subtracts the number from 100 and gets a new number. Which of the following **MUST** be true?
- 10 Dana writes a two-digit whole number. He subtracts the number from 1,000 and gets a new number. Which of the following **MUST** be true?
- 11 Jamal writes a two-digit whole number. He subtracts the number from 50 and gets a new number. Which of the following **MUST** be true?
- 12 Carl writes a two-digit whole number. He subtracts his age from the number and gets an odd number. Which of the following **MUST** be true?
- A The new number is greater than the original number.  
L The new number is less than the original number.  
B More information is needed.  
H The new number is greater than the original number.  
G The new number is less than the original number.  
I More information is needed.  
A The new number is greater than the original number.  
F The new number is less than the original number.  
C More information is needed.  
K The new number is greater than the original number.  
B The new number is less than the original number.  
E More information is needed.  
A The new number is greater than the original number.  
J The new number is less than the original number.  
I More information is needed.  
D The original number was an odd number.  
K The original number was an even number.  
H More information is needed.





# Squirrels and Starfish

In the activities below, all the animals mentioned have the correct number of legs. For example, all cows have four legs. Some of the questions may be impossible to answer, and some of the questions may require additional information.



- 1 Mr. Morgan raises squirrels (4 legs) and collects starfish (5 "legs"). There are 10 animals in all. One morning he counts all the legs and he gets 41. How many squirrels does he have?

E 9      B 12      F 15

- 2 Mrs. Chung owns 22 cows (4 legs) and 15 horses (4 legs). How many legs do the animals have in all?

C 124      A 148      J 156

- 3 Beth raises rabbits (4 legs). One day she counts all the legs and gets 124. How many rabbits does she own?

D 31      H 36      K 42

- 4 Phil raises gerbils (4 legs) and collects starfish (5 "legs"). One day he counts all the legs and he gets 17. How many starfish does he own?

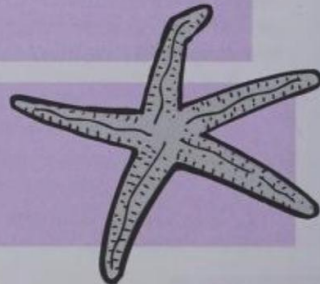
A 8      F 1      I 4

- 5 Ramon owns 5 dogs (4 legs) and a number of rabbits (4 legs). One day he counts the legs and gets 56. How many animals does he own?

I 14      B 12      L 16

- 6 Marianne raises gerbils (4 legs) and mice (4 legs). There are 30 animals in all. She counts the legs of the gerbils and gets 52. How many mice does she have?

C 14      J 16      B 17



- 7 Hanna counts 100 legs in a field of puppies (4 legs) and geese (2 legs). There are 51 animals altogether. How many puppies are in the field?

A There is one correct answer.    L More information is needed.    K Impossible

- 8 Kariem has 14 chickens (2 legs) and a number of kittens (4 legs). Altogether he counts 98 legs. How many kittens does he own?

B There is one correct answer.    E More information is needed.    H Impossible

- 9 A pet store has a total of 15 dogs (4 legs) and cats (4 legs) for sale. The manager counted 60 legs in all. How many dogs does the pet store have?

D There is one correct answer.    C More information is needed.    G Impossible

- 10 Candy raises mutputs (4 legs) and rakrobs (10 legs). There are 8 animals altogether. Esther counted the legs of the animals one day and got 56. How many rakrobs does she have?

L There is one correct answer.    F More information is needed.    I Impossible

- 11 Ariel has toy horses (4 legs) and imaginary horses (0 legs). She counts a total of 92 legs. How many imaginary horses does Ariel have?

C There is one correct answer.    J More information is needed.    K Impossible

- 12 The 12 students in a gifted class brought their four-legged pets to school one day. One student counted the legs on the students and pets and got 50 legs. How many pets are in the classroom?

A There is one correct answer.    E More information is needed.    G Impossible



In real-life, problems often have more than one answer.



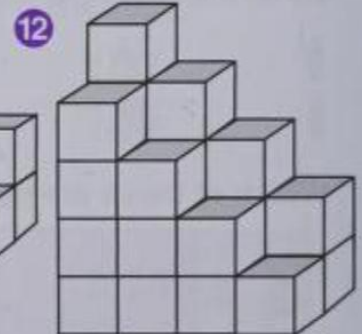
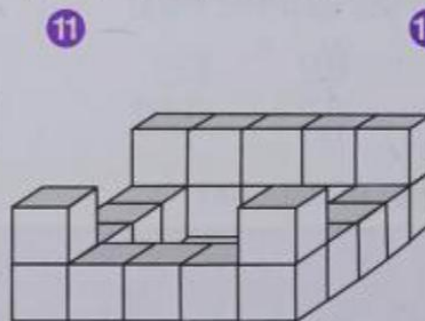
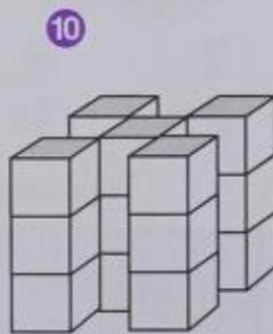
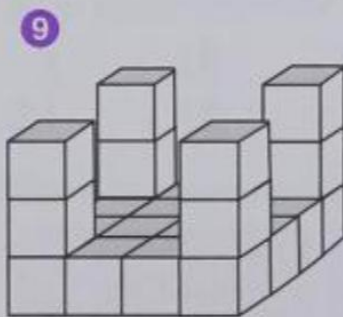
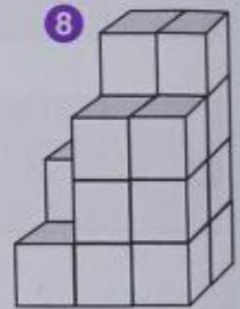
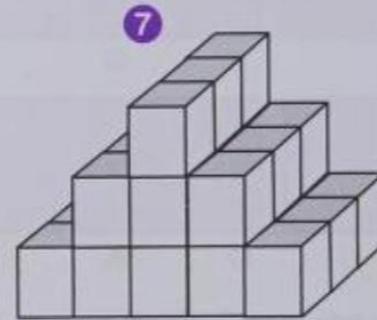
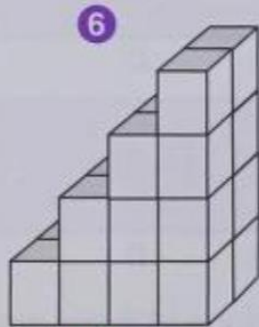
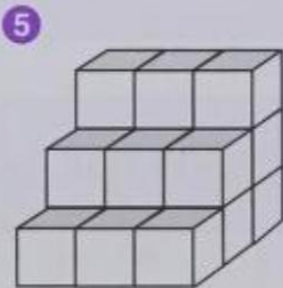
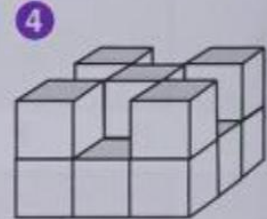
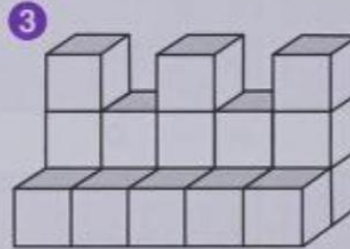
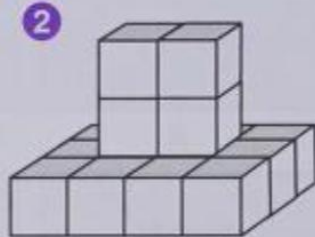
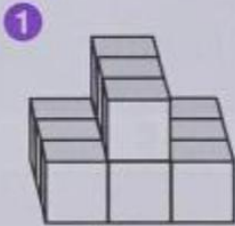
# Painting Cube Faces

This figure is made up of four cubes. Each cube has six faces. Suppose that you painted each exposed face of every cube, including the cube faces on the bottom of the figure. How many faces would you need to paint?



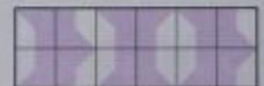
You would need to paint 16 faces.

How many exposed faces would you need to paint in each figure?



## Answer Box

A	B	C	D	E	F
52	46	58	80	42	70
G	H	I	J	K	L
62	50	48	84	66	38





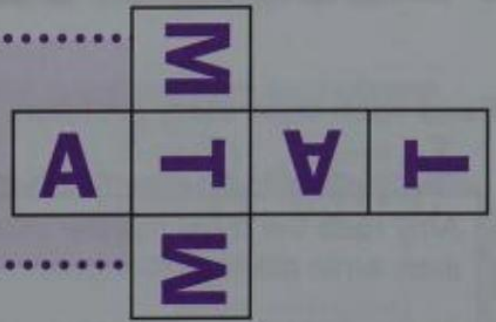
**VERSATILES MIDDLE  
GRADES CRITICAL-  
THINKING ACTIVITIES  
BOOK 4**

**THOMAS O'BRIEN**

# Puzzling Cubes

Here is a cube and its net.

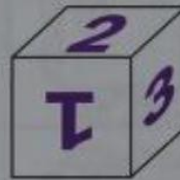
Look carefully at the letters and the position of the letter shown on each face of the cube.



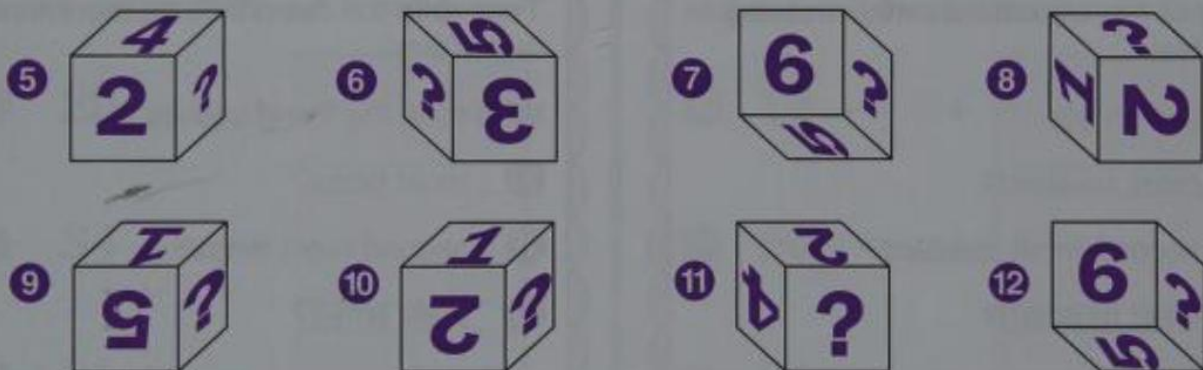
Find the letter and its position for each blank face.



The cube shown on the right is numbered from 1 to 6.

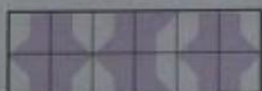


Find the missing number and its position for each blank face.



## Answer Box

A	B	C	D	E	F
T	6	T	M	3	6
G	H	I	J	K	L
4	A	T or T	6	A	3



# Number Creatures from the Sea

All of these creatures are tetratots.

4 → 6      5 → 6      9 → 10  
20 → 22    34 → 36    71 → 72

Make tetratots of these:

1 18 →

2 17 →

3 41 →

All of these creatures are plitopoms.

30 → 30    71 → 70    64 → 65  
47 → 45    58 → 60    36 → 35

Make plitopoms of these:

4 29 →

5 34 →

6 121 →

All of these creatures are technizaps.

4 → 5      7 → 11    10 → 17  
19 → 35    24 → 45    50 → 97

Make technizaps of these:

7 5 →

8 20 →

9 14 →

All of these creatures are garunders.

30 → 5      43 → 7      55 → 9  
61 → 10    89 → 14    97 → 16

Make garunders of these:

10 12 →

11 80 →

12 21 →

## Answer Box

A 20	B 30	C 37	D 3	E 25	F 42
G 2	H 7	I 18	J 120	K 13	L 35





# Fun at the County Fair



Read each logic story problem. Answer each question.

Amy rode the roller coaster more times than Arnie did.

Abe rode the roller coaster fewer times than Arnie did.

Who rode the roller coaster the

- 1 most times?
- 2 second most times?
- 3 fewest times?

Cathy ate less cotton candy than Carol.

Carol ate less cotton candy than Carl.

Who ate the

- 4 most cotton candy?
- 5 second most cotton candy?
- 6 least cotton candy?

Hal put more mustard on his foot-long hot dog than Harry.

Han put more mustard on his hot dog than Hal.

Who put on the

- 7 most mustard?
- 8 second most mustard?
- 9 least mustard?

Tom rode the flying swings fewer times than Terry.

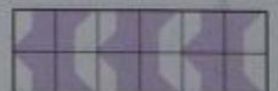
Tess rode the flying swings more times than Terry.

Who rode the flying swings the

- 10 most times?
- 11 second most times?
- 12 least times?

## Answer Box.....

A Tom	B Arnie	C Carol	D Harry	E Han	F Amy
G Cathy	H Hal	I Abe	J Terry	K Carl	L Tess





# Fraction Action

$$\frac{3}{8} \quad \frac{5}{6} \quad \frac{3}{4} \quad \frac{1}{2} \quad \frac{2}{3}$$

- Write 10 or more fractions in which the numerator is less than the denominator, such as  $\frac{5}{6}$ . Add 1 to the numerator of each fraction. Which of the following **MUST** be true?
- Write 10 or more fractions in which the numerator is one less than the denominator, such as  $\frac{2}{3}$ . Add 1 to the numerator and 1 to the denominator. Which of the following **MUST** be true?
- Write ten or more fractions less than 1, such as  $\frac{3}{4}$ . Swap the numerator and denominator. Which of the following **MUST** be true?
- Write 10 or more fractions greater than 1, such as  $\frac{5}{4}$ . Add 2 to both the numerator and the denominator of each fraction. Which of the following **MUST** be true?
- Write 10 or more fractions less than 1, such as  $\frac{3}{4}$ . Multiply both the numerator and the denominator by 6. Which of the following **MUST** be true?
- Write 10 or more fractions in which both the numerator and the denominator are even numbers, such as  $\frac{10}{12}$ . Divide both the numerator and the denominator by 2. Which of the following **MUST** be true?

- F** The new fraction is greater than the original fraction.
- C** The new fraction is less than the original fraction.
- L** More information is needed.

- B** The new fraction is greater than the original fraction.
- E** The new fraction is less than the original fraction.
- K** More information is needed.

- C** The new fraction is greater than the original fraction.
- H** The new fraction is less than the original fraction.
- J** More information is needed.

- A** The new fraction is greater than the original fraction.
- E** The new fraction is less than the original fraction.
- G** More information is needed.

- I** The new fraction is equal to the original fraction.
- B** The new fraction is greater than the original fraction.
- F** The new fraction is less than the original fraction.

- A** The new fraction is equal to the original fraction.
- D** The new fraction is not equal to the original fraction.
- H** More information is needed.

$$\frac{3}{8} \quad \frac{5}{6} \quad \frac{3}{4} \quad \frac{1}{2} \quad \frac{2}{3}$$

- Write 10 or more fractions less than 1, such as  $\frac{5}{6}$ . Multiply the numerator by 2. Which of the following **MUST** be true?
- Write 10 or more fractions greater than 1, such as  $\frac{9}{5}$ . Multiply the denominator by 5. Which of the following **MUST** be true?
- Write five fractions less than 1, such as  $\frac{5}{6}$ . Square both the numerator and the denominator in each fraction. Which of the following **MUST** be true?
- In the following pattern, each number increases by 1, a constant amount. 1, 2, 3, 4, 5, ... What **MUST** be true about the following pattern?  $\frac{1}{1}, \frac{1}{2}, \frac{1}{3}, \dots$
- Jamal has a fraction greater than 1, such as  $\frac{6}{5}$ . Niko has a fraction less than 1, such as  $\frac{2}{3}$ . Jamal multiplies the two fractions. Which of the following **MUST** be true?
- Shanika has a fraction greater than 1, such as  $\frac{6}{5}$ . Jerome has a mixed number, such as  $1\frac{1}{3}$ . Shanika multiplies the two fractions. Which of the following **MUST** be true?

$$\frac{3}{8} \quad \frac{5}{6} \quad \frac{3}{4} \quad \frac{1}{2} \quad \frac{2}{3}$$

- K** The new fraction is greater than the original fraction.
- I** The new fraction is less than the original fraction.
- B** The new fraction is equal to the original fraction.

- C** The new fraction is greater than the original fraction.
- H** The new fraction is less than the original fraction.
- L** More information is needed.

- B** The new fraction is greater than the original fraction.
- D** The new fraction is less than the original fraction.
- A** More information is needed.

- I** The numbers increase by a constant amount.
- G** The numbers decrease by a constant amount.
- L** The numbers do not increase by a constant amount.

- L** The product is greater than both original numbers.
- E** The product is less than both original numbers.
- J** The product is less than one original number and greater than the other original number.

- G** The product is greater than both original numbers.
- C** The product is less than both original numbers.
- D** Need more information.

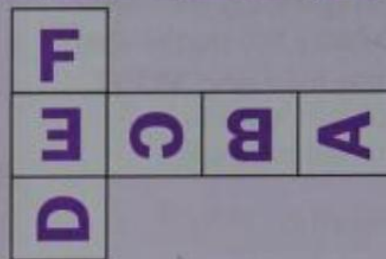




# Front Views and Back Views

## CONSIDER THIS

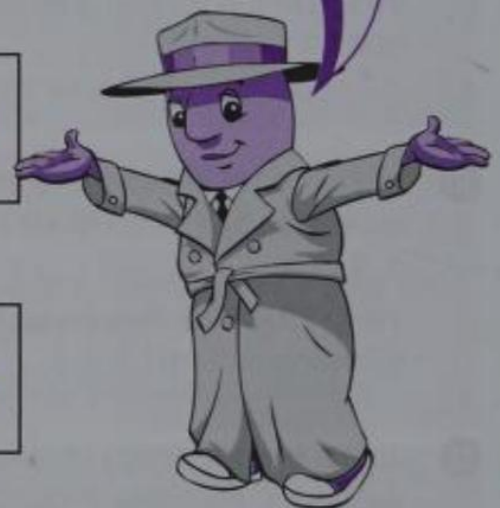
The net of a cube is shown on the right. When the net is folded, it forms a cube.



Debra and Jan are facing each other with the above cube between them. In each case below, you are given Debra's front view of the cube. Find Jan's front view in each case (which is Debra's back view).

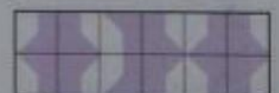
- 1 2 3 4
- 5 6 7 8
- 9 10 11 12

Label a blank cube with the letters you know to help you figure out the letter on the opposite face.



## Answer Box

A 	B 	C 	D 	E 	F 
G 	H 	I 	J 	K 	L 



# Field Trip to the Natural History Museum



Read each logic story problem. Answer each question.

Fred was ahead of Fran in line to enter the Natural History museum.

Frank was behind Fran in the same line.

Who is

- 1 first in line?
- 2 second in line?
- 3 third in line?

Sharon bought more souvenirs at the museum shop than Stella did.

Steve bought fewer souvenirs at the shop than Sharon but more than Stella.

Who bought the

- 7 most souvenirs?
- 8 second most souvenirs?
- 9 least souvenirs?

Dean liked seeing the dinosaur skeletons more than Dennis did.

Darren liked seeing the dinosaur skeletons more than Dean did.

Who liked the dinosaurs

- 4 the most?
- 5 second most?
- 6 least?

Bill got back to the bus way before Ben did.

Bess got back to the bus way after Ben did.

Who got back to the bus

- 10 first?
- 11 second?
- 12 third?

## Answer Box

A Steve	B Bess	C Ben	D Dean	E Bill	F Sharon
G Fran	H Dennis	I Stella	J Frank	K Fred	L Darren



# Intergalactic Number Creatures

All of these creatures are hobobots.

$$\begin{array}{ccc} 71 \rightarrow 8 & 43 \rightarrow 5 & 73 \rightarrow 9 \\ 80 \rightarrow 10 & 94 \rightarrow 11 & 100 \rightarrow 12 \end{array}$$

Make hobobots of these:

①  $120 \rightarrow$

②  $79 \rightarrow$

③  $23 \rightarrow$

All of these creatures are paripots.

$$\begin{array}{ccc} 16 \rightarrow 24 & 25 \rightarrow 38 & 4 \rightarrow 6 \\ 13 \rightarrow 20 & 50 \rightarrow 75 & 31 \rightarrow 47 \end{array}$$

Make paripots of these:

④  $161 \rightarrow$

⑤  $52 \rightarrow$

⑥  $103 \rightarrow$

All of these creatures are stalagots.

$$\begin{array}{ccc} 8 \rightarrow 44 & 12 \rightarrow 124 & 5 \rightarrow 5 \\ 9 \rightarrow 61 & 10 \rightarrow 80 & 6 \rightarrow 16 \end{array}$$

Make stalagots of these:

⑦  $14 \rightarrow$

⑧  $11 \rightarrow$

⑨  $7 \rightarrow$

All of these creatures are merdilots.

$$\begin{array}{ccc} 16 \rightarrow 4 & 10 \rightarrow 3 & 29 \rightarrow 5 \\ 48 \rightarrow 6 & 91 \rightarrow 9 & 115 \rightarrow 10 \end{array}$$

Make merdilots of these:

⑩  $190 \rightarrow$

⑪  $78 \rightarrow$

⑫  $53 \rightarrow$

## Answer Box

A 29	B 2	C 9	D 7	E 15	F 242
G 8	H 78	I 101	J 155	K 13	L 176



# Mental Arithmetic—Coins

Use only the following coins in answering each question.



What is the smallest number of coins you could use to make the following amounts?

1 \$1.27

2 37¢

3 \$1.50

4 \$9.75

5 \$1.93

6 57¢



7 \$5.55

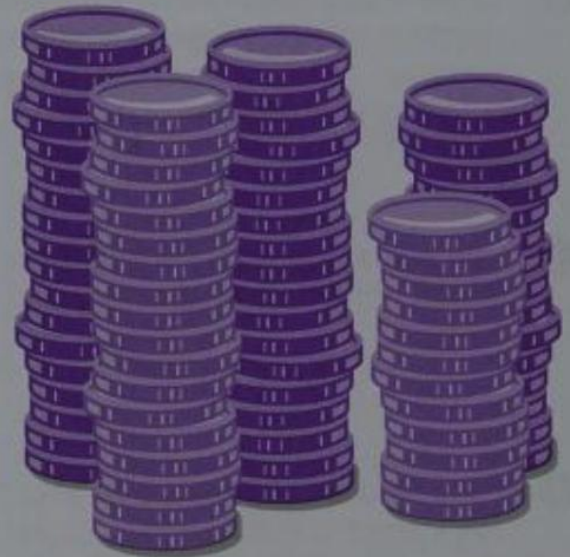
8 \$2.15

9 \$6.66

10 \$100

11 \$10.21

12 \$11.11



## Answer Box.....

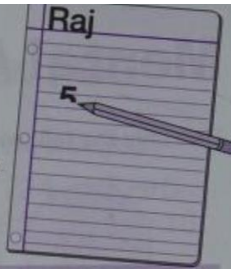
A 4	B 46	C 12	D 43	E 7	F 23
G 10	H 5	I 6	J 29	K 400	L 39





# Secret Numbers

Latasha secretly wrote two different single-digit numbers on a sheet of paper. Raj secretly wrote two different single-digit numbers on another sheet of paper. None of the numbers are the same.



- 1 Latasha adds her two numbers. Raj adds his two numbers. The sum of Latasha's numbers is greater than the sum of Raj's numbers. Which of the following statements **MUST** be true?
  - G Both of Latasha's numbers are greater than both of Raj's numbers.
  - E At least one of Latasha's numbers is less than one of Raj's numbers.
  - F More information is needed.
- 2 Latasha and Raj showed each other their secret numbers. When they added the four numbers, the sum was an odd number. Which of the following statements **MUST** be true?
  - B At least one of the four numbers is odd.
  - I At most one of the four numbers is odd.
  - J More information is needed.
- 3 The average of their four numbers is 6. Which of the following statements **MUST** be true?
  - A Two of the numbers are greater than 6.
  - H One of the numbers is equal to 6.
  - D Neither of the above statements must be true.
- 4 Latasha's smaller number is less than Raj's smaller number. Her greater number is less than Raj's greater number. If Latasha adds her numbers and Raj adds his numbers, which of the following statements **MUST** be true?
  - F The sum of Latasha's numbers is greater than the sum of Raj's numbers.
  - K The sum of Latasha's numbers is less than the sum of Raj's numbers.
  - E More information is needed.
- 5 Both Latasha and Raj multiply their two numbers. The product of Latasha's numbers is less than the product of Raj's numbers. Which of the following statements **MUST** be true?
  - H Both of Raj's numbers are greater than both of Latasha's numbers.
  - J At least one of Raj's numbers is greater than one of Latasha's numbers.
  - B More information is needed.
- 6 Latasha multiplies her two numbers and gets a product of 16. Raj adds his two numbers and gets a sum of 12. Which of the following statements **MUST** be true?
  - D Both Latasha's and Raj's numbers are determined.
  - G Latasha's numbers are determined, but Raj's numbers are not.
  - C Raj's numbers are determined, but Latasha's numbers are not.



Try several examples to gather enough evidence before you decide which answer is correct.

- 7 If you multiply all four of their numbers, the product is 105. Which of the following statements **MUST** be true?
  - E All four numbers are determined.
  - L Some, but not all, of the numbers are determined.
  - I None of the numbers are determined.
- 8 If you add all four of their numbers, the sum is 20. Which of the following statements **MUST** be true?
  - K All four numbers are determined.
  - A Some but not all of the numbers are determined.
  - H None of the numbers are determined.
- 9 Latasha's numbers are both odd. Raj's are both even. All four numbers are added. Which of the following statements **MUST** be true?
  - C The sum is even.
  - D The sum is odd.
  - G More information is needed.
- 10 Latasha multiplies her two numbers and gets a product of 16. Raj multiplies his two numbers and gets a product of 12. Which of the following statements **MUST** be true?
  - J Latasha's numbers are determined, but Raj's numbers are not.
  - B Raj's numbers are determined, but Latasha's numbers are not.
  - L Both Latasha's numbers and Raj's numbers are determined.
- 11 Latasha squares her two numbers and adds the results. She gets 40. Raj does the same and gets 17. Which of the following statements **MUST** be true?
  - I Both Latasha's numbers and Raj's numbers are determined.
  - F Latasha's numbers are determined but Raj's numbers are not.
  - K Raj's numbers are determined, but Latasha's numbers are not.
- 12 Both of Latasha's numbers are divisible by 2. Both of Raj's are divisible by 3. Suppose you add all four numbers. Which of the following statements **MUST** be true?
  - L The result is even.
  - C The result is odd.
  - A More information is needed.

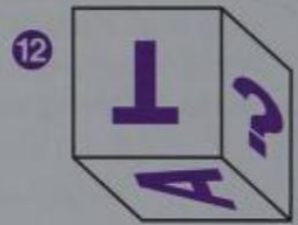
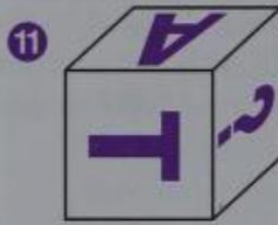
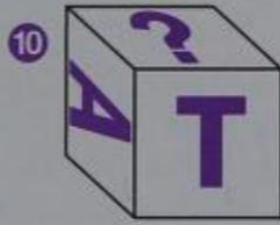
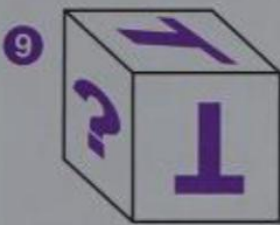
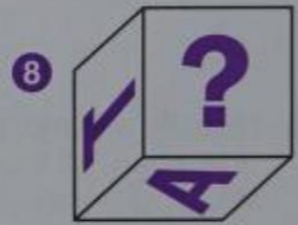
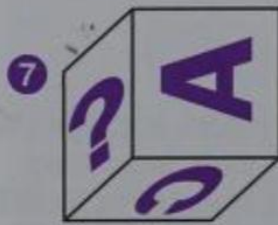
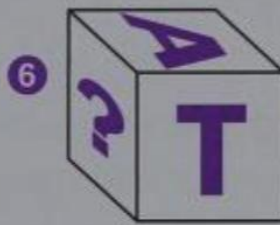
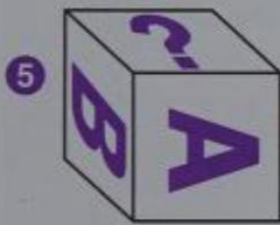
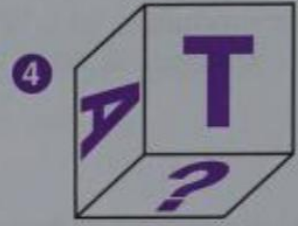
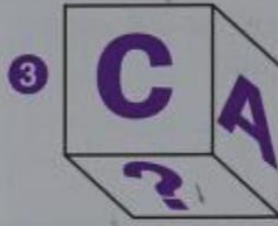
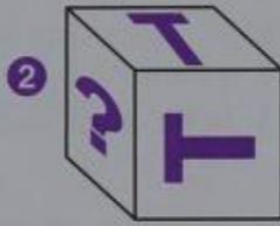
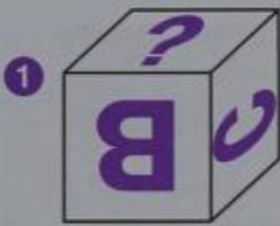
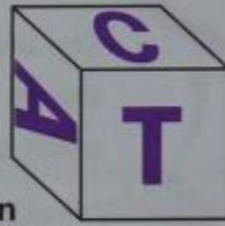




# Seeing Double

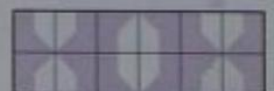
Another cube is shown at the right.

Look carefully at the letters and their position shown on each face of the cube. Find the letter and its position for the blank face. Watch out for doubles!



## Answer Box

A	B	C	D	E	F
C	T	A	B	C	C
G	H	I	J	K	L
A	T	T	B	A	T





# Alien Number Creatures

All of these creatures are foxbots.

$$\begin{array}{ccc} 41 \rightarrow 11 & 30 \rightarrow 8 & 27 \rightarrow 7 \\ 52 \rightarrow 13 & 80 \rightarrow 20 & 101 \rightarrow 26 \end{array}$$

Make foxbots of these:

1  $85 \rightarrow$

2  $62 \rightarrow$

3  $15 \rightarrow$

All of these creatures are ursabots.

$$\begin{array}{ccc} 5 \rightarrow 15 & 10 \rightarrow 25 & 12 \rightarrow 29 \\ 15 \rightarrow 35 & 24 \rightarrow 53 & 38 \rightarrow 81 \end{array}$$

Make ursabots of these:

4  $8 \rightarrow$

5  $9 \rightarrow$

6  $50 \rightarrow$

All of these creatures are porcubots.

$$\begin{array}{ccc} 4 \rightarrow 4 & 16 \rightarrow 7 & 13 \rightarrow 4 \\ 27 \rightarrow 9 & 137 \rightarrow 11 & 206 \rightarrow 8 \end{array}$$

Make porcubots of these:

7  $71 \rightarrow$

8  $11 \rightarrow$

9  $146 \rightarrow$

All of these creatures are falcobots.

$$\begin{array}{ccc} 4 \rightarrow 13 & 10 \rightarrow 31 & 13 \rightarrow 40 \\ 22 \rightarrow 67 & 37 \rightarrow 112 & 51 \rightarrow 154 \end{array}$$

Make falcobots of these:

10  $9 \rightarrow$

11  $16 \rightarrow$

12  $28 \rightarrow$

## Answer Box

A 22	B 21	C 23	D 11	E 16	F 105
G 28	H 8	I 4	J 49	K 2	L 85



# Mental Algebra



Read each clue. Try to figure out the mystery number mentally without using a piece of paper and a pencil.

I am thinking of a number. . .

- 1 If I double the number and add 1, I get 29. What's the number?
- 2 If I triple the number and subtract 15, I get 24. What's the number?
- 3 If I square the number and add 10, I get 91. What's the number?
- 4 If I halve the number and halve it again, I get 15. What's the number?
- 5 If I multiply the number by 6 and subtract 2 from the product, I get 34. What's the number?
- 6 If I subtract 10 and take the square root of the difference, I get 8. What's the number?
- 7 If I double the number and double again and then add 20, I get 40. What's the number?
- 8 If I add 2 to the number and multiply the sum by 10, I get 100. What's the number?
- 9 If I square the number and add 1, I get 101. What's the number?
- 10 If I add the number to itself and then double the result, I get 44. What's the number?
- 11 If I subtract the number from 100 and square the difference, I get 25. What's the number?
- 12 If I subtract 7 from the number and square the difference, I get 0. What's the number?

## Answer Box

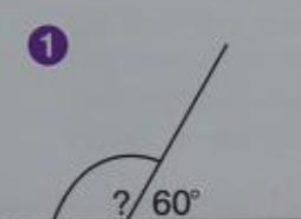
A 13	B 74	C 9	D 10	E 14	F 60
G 7	H 8	I 6	J 95	K 5	L 11

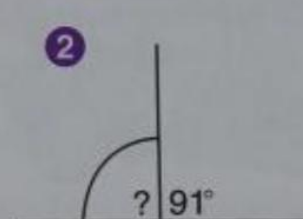


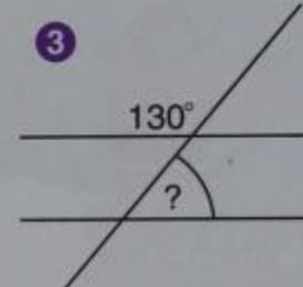


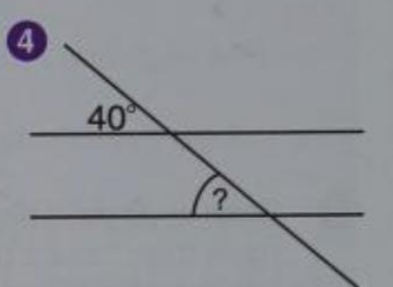
# What's My Angle?

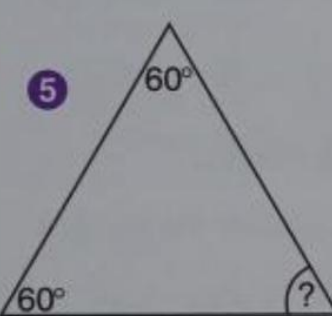
In each problem, find the measurement of the angle.

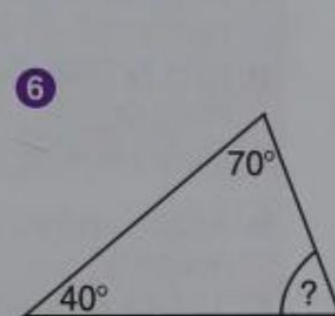
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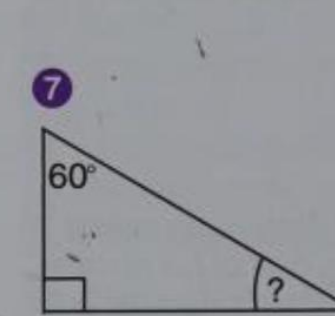
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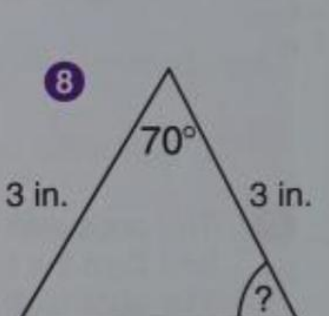
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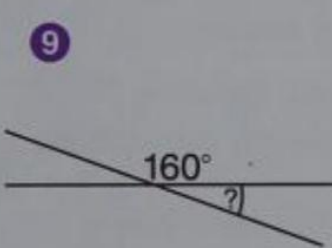
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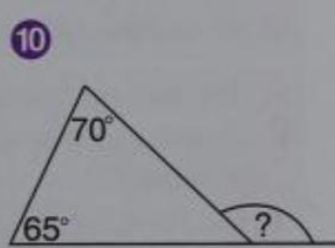
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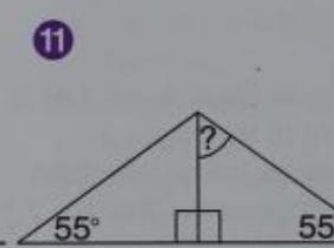
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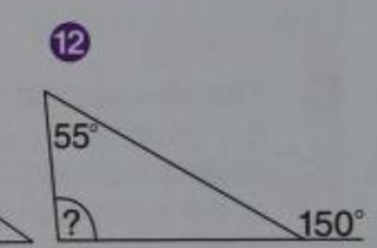
7 

8 

9 

10 

11 

12 

## Answer Box

A 55°	B 95°	C 20°	D 50°	E 135°	F 30°
G 70°	H 89°	I 35°	J 60°	K 40°	L 120°

