



You should do any working out on paper, and fill in the answers once you are happy with them.

1. What is 673 rounded to the nearest ten?

- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 700      | 670      | 680      | 6730     | 600      |

2. How many degrees in a quarter turn?

- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 25       | 180      | 90       | 50       | 270      |

3. Find the mean of the following numbers:

2,2,3,5,8

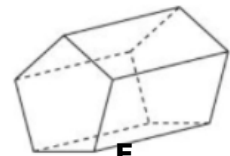
- |          |          |          |          |          |
|----------|----------|----------|----------|----------|
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
| 20       | 5        | 4        | 3        | 2        |

4. Which fraction is equivalent to  $\frac{2}{6}$ ?

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| <b>A</b>      | <b>B</b>      | <b>C</b>      | <b>D</b>      | <b>E</b>      |
| $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{1}{5}$ | $\frac{4}{8}$ | $\frac{3}{9}$ |

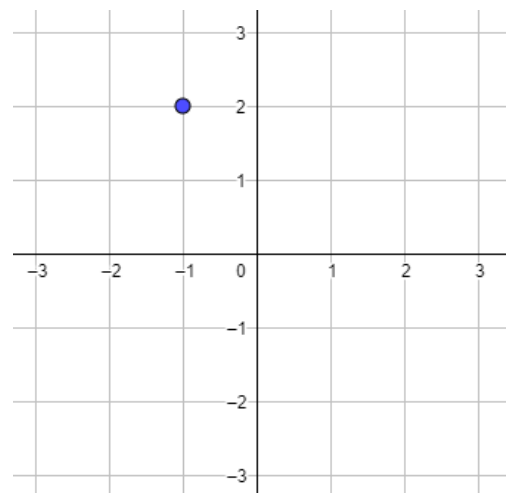
5. Which statement is true?  
A pentagonal prism has ...

- |            |          |                        |          |                      |
|------------|----------|------------------------|----------|----------------------|
| <b>A</b>   | <b>B</b> | <b>C</b>               | <b>D</b> | <b>E</b>             |
| 8 vertices | 5 faces  | The same cross section | 16 edges | 5 planes of symmetry |



6. What is the coordinate of this point?

- |          |         |
|----------|---------|
| <b>A</b> | (-2,1)  |
| <b>B</b> | (2,-1)  |
| <b>C</b> | (1,-2)  |
| <b>D</b> | (-2,-1) |
| <b>E</b> | (-1,2)  |



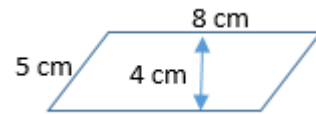
7. What is  $145 + 281 + 62$ ?

- A** 426      **B** 488      **C** 946      **D** 988      **E** 1046

8. Which of the following is a factor of 42?

- A** 7      **B** 4      **C** 84      **D** 12      **E** 9

9. What is the area of this parallelogram?



- A**  $40 \text{ cm}^2$       **B**  $32 \text{ cm}^2$       **C**  $20 \text{ cm}^2$       **D**  $160 \text{ cm}^2$       **E**  $26 \text{ cm}^2$

10.  $v = u + at$

Find the value of  $v$  when  $a = 3$ ,  $t = 5$  and  $u = 10$

- A** 25      **B** 18      **C** 53      **D** 45      **E** 35

11. How many lines of symmetry in an equilateral triangle?

- A** 0      **B** 1      **C** 2      **D** 3      **E** 4

12. Solve this equation:

$$3x - 3 = 18$$

- A**  $x = 5$       **B**  $x = 18$       **C**  $x = 6$       **D**  $x = 7$       **E**  $x = 9$

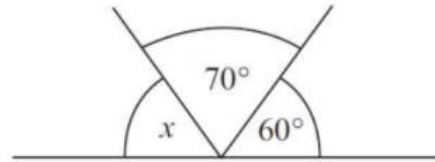
13. Calculate 5% of £70

- A** £3.50      **B** 35 p      **C** 70 p      **D** £0.07      **E** £35

14. Two lighthouses sit in the same bay. One lighthouse flashes every 6 seconds. The other flashes every 8 seconds. If at one point they flash at the same time, how long would it take for this to occur again?

- A** 6 seconds      **B** 8 seconds      **C** 12 seconds      **D** 24 seconds      **E** 48 seconds

15. How big is the missing angle?



**A**  
 $30^\circ$

**B**  
 $50^\circ$

**C**  
 $130^\circ$

**D**  
 $60^\circ$

**E**  
 $70^\circ$

16. Calculate  $7 \times (24 + 8)$

**A**  
224

**B**  
39

**C**  
35

**D**  
2114

**E**  
176

17. Which of these is the same as  $2ab$ ?

**A**  
 $2 \times a \times b$

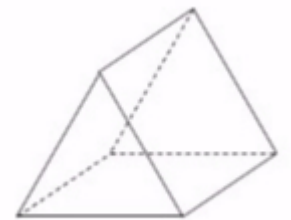
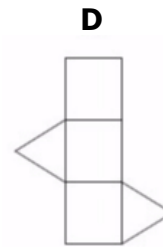
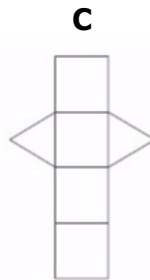
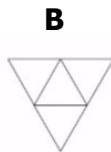
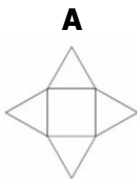
**B**  
 $2a - b$

**C**  
 $2a \times 2b$

**D**  
 $2 + a + b$

**E**  
 $2a + b$

18. Which net matches this shape?



19. 8 pencils cost £1.60. How much do 6 pencils cost?

**A**  
20 p

**B**  
£1.20

**C**  
48p

**D**  
90 p

**E**  
80 p

20. What is the range of the following numbers: 6,7,4,5,9,7

**A**  
1

**B**  
2

**C**  
3

**D**  
4

**E**  
5

21. Expand  $3(5a - 2)$

**A**  
 $15a - 2$

**B**  
 $8a - 2$

**C**  
 $9a$

**D**  
 $15a - 6$

**E**  
 $8a - 6$

22. It has just turned 22:22. How many minutes are there until midnight?

- A** 178      **B** 138      **C** 128      **D** 108      **E** 98

23. Nadiya is baking a cake. The recipe says that her cake should be baked in the oven for 1 hour and 35 minutes. She puts the cake in the oven at 11:40 am. What time should she take the cake out of the oven?

- A** 12:15 pm      **B** 12:40pm      **C** 1:05pm      **D** 1:15pm      **E** 2:15pm

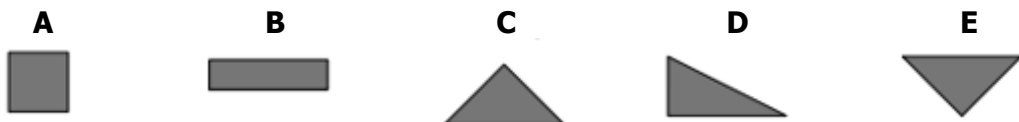
24. Which of the following numbers is not a multiple of 45?

- A** 765      **B** 675      **C** 585      **D** 495      **E** 305

25. A download is 95% complete. What fraction is yet to be downloaded?

- A**  $\frac{1}{2}$       **B**  $\frac{1}{5}$       **C**  $\frac{1}{20}$       **D**  $\frac{1}{9}$       **E**  $\frac{1}{10}$

26. A square is folded exactly in half and then in half again. Which of the following could not be the resulting shape?



27. Three boxes under my stairs contain apples or pears or both. Each box contains the same number of pieces of fruit. The first box contains all twelve of the apples and one ninth of the pears. How many pieces of fruit are there in each box?

- A** 14      **B** 16      **C** 18      **D** 20      **E** 36

28. The range of a list of integers is 20 and the median is 17. What is the smallest possible number of integers in the list?

- A** 1      **B** 2      **C** 3      **D** 4      **E** 5

29. Knave of Hearts: "I stole the tarts."

Knave of Clubs: "The Knave of Hearts is lying."

Knave of Diamonds: "The Knave of Clubs is lying."

Knave of Spades: "The Knave of Diamonds is lying."

How many of the four Knaves were telling the truth?

**A**

1

**B**

2

**C**

3

**D**

4

**E**

More  
information  
needed

30. If you work out the values of the following expressions and place them in increasing order, which would be in the middle?

**A**

$$\frac{2}{3} + \frac{4}{5}$$

**B**

$$\frac{2}{3} \times \frac{4}{5}$$

**C**

$$\frac{3}{4} + \frac{5}{4}$$

**D**

$$\frac{2}{3} \div \frac{4}{5}$$

**E**

$$\frac{3}{2} \times \frac{5}{4}$$