



<b>JMC</b>
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**Qualifying Test**  
**22<sup>nd</sup> March 2023**

question no.	1	2	3	4	5	6	7	8	9	10
marks										

question no.	11	12	13	14	15	16	17	18	19	20
marks										

question no.	21	22	23
marks			

<b>SCORE</b>	
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## Section A

Tick (✓) the correct answer in each question.

Each question carries 2 points.

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1. Work out

$$(555 + 50) \div 5$$

a. 13

b. 121

c. 211

d. 565

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2. How many numbers are **missing** in this number sequence?

6, 12, 18, 24, .....120, 126, 132

a. 96

b. 16

c. 20

d. 15

3. The number of hours in the Year 2023 is equal to....

- a.  $365 \times 12$
  - b.  $(366 \times 24) - 1$
  - c.  $(366 - 1) \times (8 \times 3)$
  - d.  $122 \times 9 \times 8$
- 

4. Tick (✓) the statement which is **always true**.

- a. If you multiply 12 by a number, the answer will be greater than 12.
  - b. The sum of two fractions is a whole number.
  - c. Any multiple of 100 is divisible by 4.
  - d. Any number that is divisible by 3 is divisible by 6.
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5. In the subtraction below, P, Q, R, S and T represent single digits.  
What is  $P + Q + R + S + T$ ?

$$\begin{array}{rcccccc} & 8 & Q & 4 & 4 & S & T \\ - & P & 6 & R & 6 & 9 & 5 \\ \hline 4 & 5 & 6 & 7 & 8 & 9 & \end{array}$$

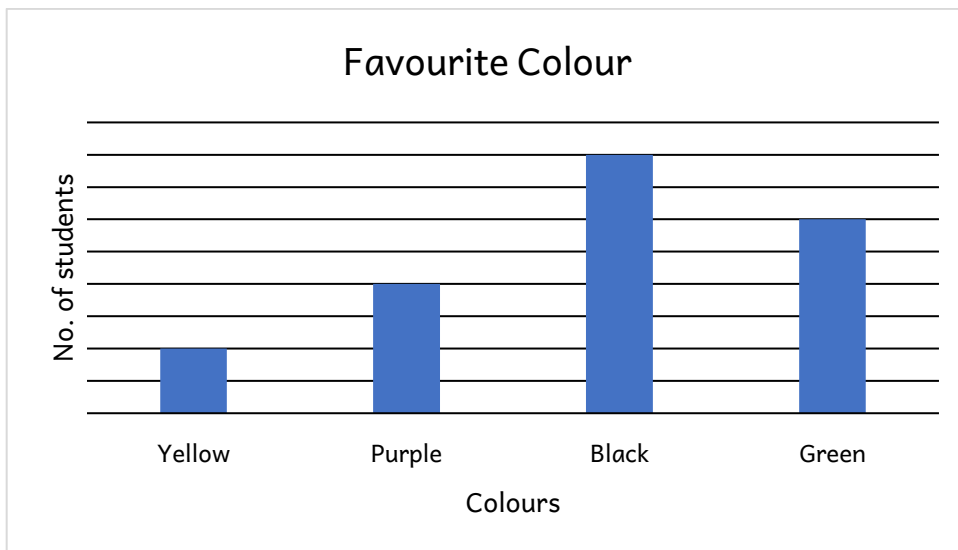
- a. 23
- b. 24
- c. 25
- d. 26

6. **2·3 hours** is equal to:

- a. 2 hours and 3 minutes
- b. 2 hours and 20 minutes
- c. 2 and a half hours
- d. 2 hours and 18 minutes

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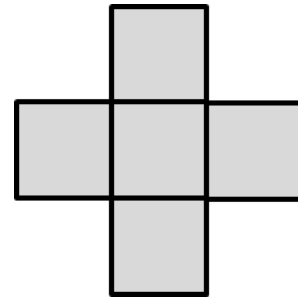
7. This graph shows the favourite colour of **40 children**.  
Each child chose one favourite colour.  
How many children chose **black** as their favourite colour?



- a. 12 children
- b. 16 children
- c. 18 children
- d. 20 children

8. The diagram below is made of 5 identical squares.  
The **perimeter** of the diagram is **192 cm**.  
What is the **area** of one square?

- a. 100 cm<sup>2</sup>
- b. 144 cm<sup>2</sup>
- c. 169 cm<sup>2</sup>
- d. 256 cm<sup>2</sup>

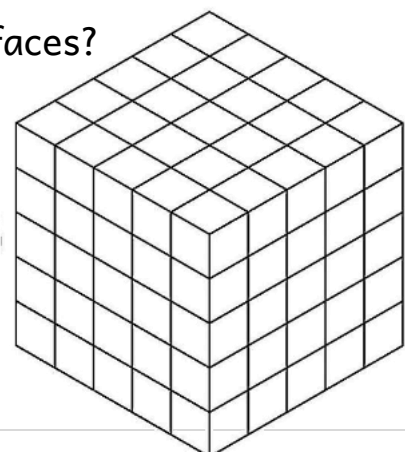


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9. There are **8 different coloured balls** in a bag: Yellow, Green, Blue, Orange, Black, Purple, White and Red.  
Carla picks up two balls from the bag at random at the same time.  
Carla can pick a Yellow and a Green ball, or a Yellow and a Blue ball.  
However, there are many different options.  
How **many different options** are there in all?

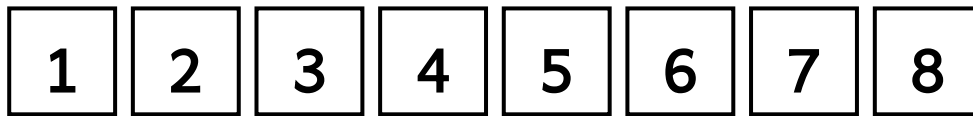
- a. 16 options
- b. 28 options
- c. 24 options
- d. 8 options

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10. A **big cube** is made up of **125 small cubes**.  
All the faces of the big cube are painted.  
How many **small cubes** have **only 2 painted faces**?

- a. 18 small cubes
- b. 36 small cubes
- c. 40 small cubes
- d. None of the above



11. The cards below are put into two boxes: Box A and Box B.  
Three cards are in Box A. The rest are in Box B.



The sum of the digits on the cards in Box A, is equal to the sum of the digits on the cards in Box B.

Tick (✓) the statement that is certainly true.

- a. All the cards in Box A show odd numbers.
- b. Four cards in Box B show even numbers.
- c. The card showing 1 is in Box A.
- d. The card showing 2 is in Box B.
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12. An equilateral triangle and a square have the same perimeter.  
Which of the following can be their perimeter?  
(Note: Their sides are whole numbers.)

- a. 9 cm
- b. 16 cm
- c. 24 cm
- d. It is not possible to have the same perimeter.

13. Jack has **two 1- 6 dice**.

He **throws both dice and adds the numbers on the top faces of the two dice**.

He notices that:

- a. The chance of an even answer is higher.
- b. The chance of an odd answer is higher.
- c. There is an equal chance of getting an even or an odd number.
- d. None of the above is correct.
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14. A frog falls into a hole which is **25 m** deep.

Each day the frog **climbs up 4 m and falls back 1.5 m**.

**How many days** does it take the frog to make it to the top?

- a. 100 days
- b. 10 days
- c. 9 days
- d. 4.75 days
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15. Which of these numbers is **exactly divisible by 7**?

- a. 314
- b. 315
- c. 316
- d. 317
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16. The factors of 6 are 1, 2, 3 and 6.

When all its factors, except itself, are added... the answer is 6.

For this reason, **6 is a perfect number.**

Tick (✓) the perfect number from the numbers below.

a. 20

b. 24

c. 28

d. 36

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17. Find the number **exactly halfway** between  $20\cdot7$  and  $25\cdot3$ .

a.  $2\cdot3$

b.  $4\cdot6$

c. 23

d.  $23\cdot4$

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18. The **sum of angles** of a regular pentagon is  $540^\circ$ .

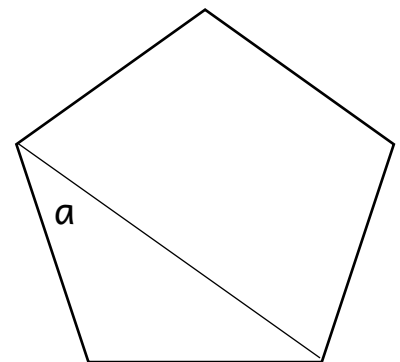
What is the **size of angle a**?

a.  $36^\circ$

b.  $60^\circ$





c.  $72^\circ$

d. We cannot tell without measuring





19. Below is a pictograph showing smoothie preferences in Year 6.  
 There are **62 students** in Year 6.  
 Students choose one preference each.  
**How many more students like strawberry milkshake than peach milkshake?**

Activity	Preference
Strawberry	
Vanilla	
Chocolate	
Peach	

- a. 3·5 students
- b. 7 students
- c. 11 students
- d. 14 students

**Section B**

**Show your working.**

**Each question carries 3 points.**

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20. **All** the pages in a book are numbered starting from number 1.  
The **sum** of the page numbers on the **first 2 pages** and the **last 2 pages** is **402**.  
How many **pages** are there in this book?

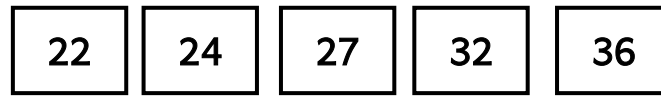
pages

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21. I have a jar of sweets.  
If I give **4 sweets** to each of my friends, I will have **10 sweets** left.  
If I give **6 sweets** to each of my friends, I will be **20 sweets** short.

How many sweets are there in the jar?

sweets

22. Use **four** of the number cards below to complete the number sentence.



$$\square \times \square = \square \times \square$$

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23. The **sum of 13 consecutive numbers** (following each other) is **169**. Which is the **largest** of these numbers?

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**End of test**