

CODE: JMC _____



Final Test
18th May 2022

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			

SCORE

Section A

Tick (✓) the correct answer in each question.

Each question carries 2 points.

1. Martha writes six different three-digit numbers.
Each number contains **all the digits 1, 2 and 6**.
How many of these three-digit numbers are **prime numbers**?

Note: A prime number is a number that is divisible only by 1 and by itself.

- a. 0
- b. 1
- c. 2
- d. 4
-

2. Convert $3\frac{4}{500}$ to a decimal.

- a. 3.4
- b. 3.5
- c. 3.08
- d. 3.008

3. How many **missing numbers** are there in the sequence below?

8, 12, 16, 20, ... , 2016, 2020

a. 498

b. 499

c. 500

d. 503

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

a. If you multiply 12 by a number, the answer will be greater than 12.

b. If two rectangles have the same perimeter, they have the same area.

c. Dividing a whole number by a half ($\frac{1}{2}$), makes it twice as big.

d. The square of a number is greater than that number.

5. Work out: $0.1 + 0.2 + (0.3 \times 0.4)$

a. 0.42

b. 0.15

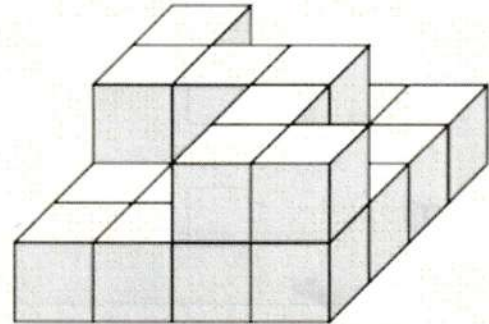
c. 1.5

d. 4.2

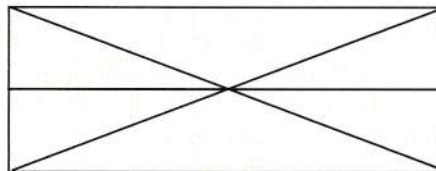
6. The figure below consists of **23 identical small cubes**.
At least how many small cubes do we need to add to turn the solid in this figure into a large cube?

Note: The 23 cubes that are already in the figure cannot be moved.
The cubes you add need to be identical to the other 23 cubes.




- a. 8
- b. 9
- c. 25
- d. 41



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7. How many triangles are there in the diagram below?



- a. 10
- b. 12
- c. 14
- d. 16

8.  ,  and  represent **three different whole numbers larger than 0**.

$$\triangle \times \square = 2$$

$$\square \times \bigcirc = 24 \div 4$$

$$\bigcirc \times \triangle = 3$$

What is the **value** of $\triangle \times \square \times \bigcirc$

- a. 6
- b. 8
- c. 10
- d. 12

-
9. The mass of a tin of paint when it is **half full** is **6 kg**.
The mass of the same tin of paint when it is **quarter full** is **3.2 kg**.
What is the mass of the **same tin of paint** when **full**?

- a. 8.8 kg
- b. 9.2 kg
- c. 11.6 kg
- d. 12.4 kg

10. Today is **Wednesday 18 May 2022**.

Seven days ago it was **Wednesday 11 May 2022**.

What was the date a **100 days ago**?

- a. Sunday 6th February 2022
 - b. Monday 7th February 2022
 - c. Tuesday 8th February 2022
 - d. Wednesday 9th February 2022
-

11. A teacher buys **50 identical notebooks**.

She spends **€25**.

How much does **each notebook cost**?

- a. 20 cent
 - b. 50 cent
 - c. €2
 - d. €5
-

12. Which of the following is the **same** as **3·18 km**?

- a. 318 cm
- b. 3180 cm
- c. 3180 m
- d. 31800 cm

13. In a group of **60 children**:

- 45 have brown hair
- 10 have blue eyes
- 5 have both brown hair and blue eyes.

How many children have **neither brown hair nor blue eyes**?

- a. 5
- b. 10
- c. 15
- d. We cannot tell.
-

14. The **sum of ten consecutive whole numbers** is equal to **65**.

Work out the **total of the smallest and the largest** of these numbers.

- a. 11
- b. 12
- c. 13
- d. 14

15. Paula has a rectangular cardboard of size **9.6 cm × 10 cm**.
What is the **maximum number of smaller rectangles of size 2 cm × 3 cm** that Paula can cut out of this cardboard?

Note: Paula cannot join small pieces of cardboard together to form a rectangle. She is only allowed to use a pair of scissors.

- a. 12 rectangles
- b. 14 rectangles
- c. 15 rectangles
- d. 16 rectangles
-

16. I have some pens.
One quarter of my pens are green.
One third of the remaining pens are red.
The rest of the pens are blue.
If I have **16 blue pens**, how many pens do I have in **all**?

- a. 24 pens
- b. 32 pens
- c. 36 pens
- d. 48 pens

17. Look carefully at the matchstick pattern below.
How many matchsticks will there be in **Figure 70**?



Figure 1



Figure 2



Figure 3

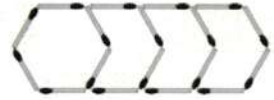


Figure 4

- a. 280 matchsticks
- b. 354 matchsticks
- c. 420 matchsticks
- d. None of the above

18. One of the gift boxes below contains a gift.
The other two boxes are empty.
Read the statements underneath each gift box.
Only one of the statements is **true**.



Gift Box 1
The gift is in this box.



Gift Box 2
The gift is not in this box.



Gift Box 3
The gift is not in Box 1

Which gift box contains the gift?

- a. Gift Box 1
- b. Gift Box 2
- c. Gift Box 3
- d. We cannot tell.

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19. Vanessa is **30 years older than her son Luke**.
In five years' time, her age will be **twice as that of Luke**.
How old is Luke **now**?

- a. 10 years
- b. 25 years
- c. 30 years
- d. We cannot tell.

Section B

Show your working.

Each question carries **3 points**.

20. Karl is playing **Crack The Code**.

The code Karl is attempting to guess is a 3-digit number.

Attempts	Code	Hints
5 th attempt	612	One digit is correct and placed well.
4 th attempt	341	No digit is correct.
3 rd attempt	256	Two digits are correct but are not placed well.
2 nd attempt	678	One digit is correct but is not placed well.
1 st attempt	315	One digit is correct but is not placed well.

What is the **code**?

21. A rectangle with an area of 784 cm^2 is divided into four identical squares.

What is the **perimeter** of each square in **metres**?



22. **50 kg** of flour is packed into **16 packets**.
Some packets contain **3 kg** of flour.
Other packets contain **4 kg** of flour.
How many packets contain **4 kg** of flour?

packets

23. Some teams were participating in a football tournament.
All the teams played once against each other.
Altogether they played **28 games.**
Team B and **Team C** won the most games.
Team C won 6 games and **Team B won 5 games.**
How many **teams** were playing in the tournament?

teams

End of test