

Annual Examinations for Secondary Schools 2022

YEAR 10

**MATHEMATICS
MAIN PAPER**

TIME: 45 minutes

1	2	3	4	5	6	7	8	9	10	11	Total Main	Non Calculator	GLOBAL MARK

DO NOT WRITE ABOVE THIS LINE

Name: _____

Class: _____

- **Answer ALL questions.**
- **This paper carries a total of 75 marks.**
- **Calculators are allowed but all necessary working must be shown.**

1. a) Round:

i) 88 to the nearest 10 _____

ii) 808 to the nearest 100 _____

iii) 8808 to the nearest 1000 _____

b) Use your answers in (a) to work out a rough estimate for:

$$\frac{88 \times 808}{8808}$$

Ans: _____

(5 marks)

2. a) Write the following numbers in ascending order, smallest first.

27.85 , 27.58 , 2.785 , 278.5 , 25.78 , 257.8

_____, _____, _____, _____, _____, _____

b) i) Use your calculator to work out:

$$\frac{27.85 \times 25.78}{2.785}$$

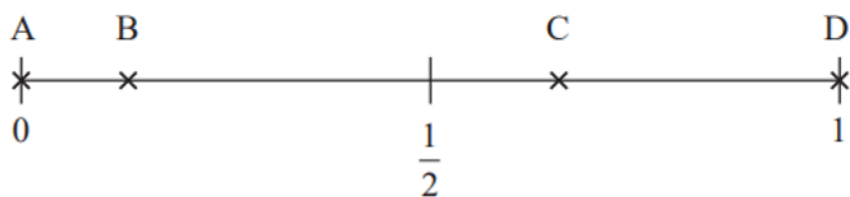
Ans: _____

ii) Write the answer of b (i) to the nearest whole number.

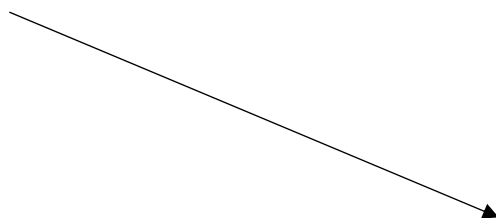
Ans: _____

(6 marks)

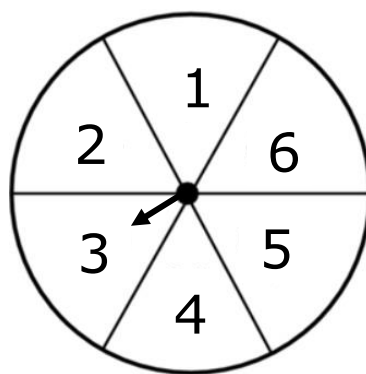
3. a) Use the probability scale to match.



A	Certain
B	Likely
C	Impossible
D	Very Unlikely



b) In a game, a fair spinner is used.



What is the probability that it stops on:

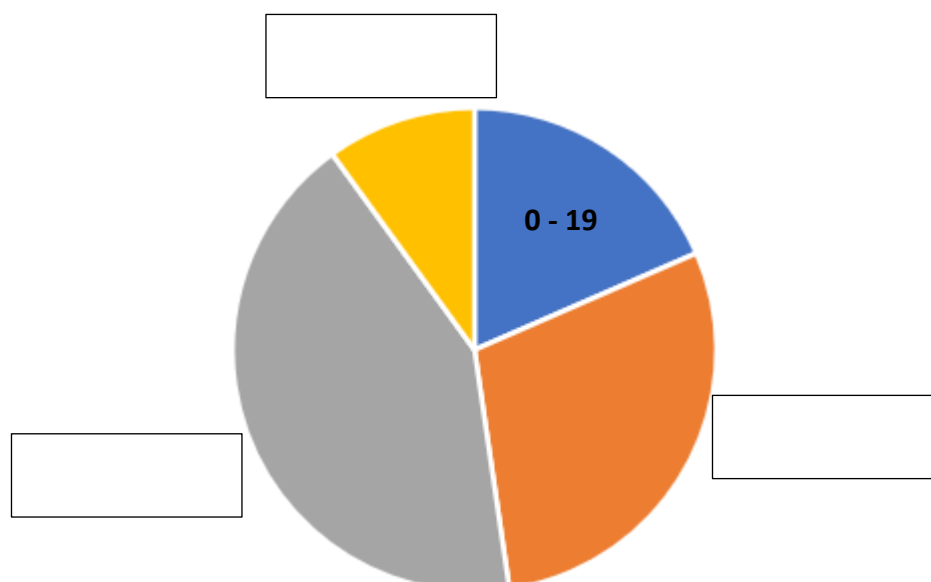
- | | |
|---------------------------|------------|
| i) the number 3 | Ans: _____ |
| ii) an even number | Ans: _____ |
| iii) a number less than 5 | Ans: _____ |

(6 marks)

4. a) The frequency table below shows the ages of the people who watched a film on a Monday evening.

Age Group in Years	Frequency
0 – 19	24
20 – 39	38
40 – 59	55
60 – 79	13

- i) How many people watched the film? Ans: _____
- ii) Which age group was the most common? Ans: _____
- iii) How many people over 19 years went to watch the film? Ans: _____
- iv) Fill in the missing information in the pie chart below.



- b) Work out 25% of 300.

Ans: _____

(10 marks)

5. a) A family of two adults and a child book a weekend break in Gozo.
A weekend break costs €150 for each adult and the child package is half the price.

PRICE INCLUDES

Ferry

Hotel Accommodation

Breakfast

€150.00

- i) How much is the child package?

Ans: _____

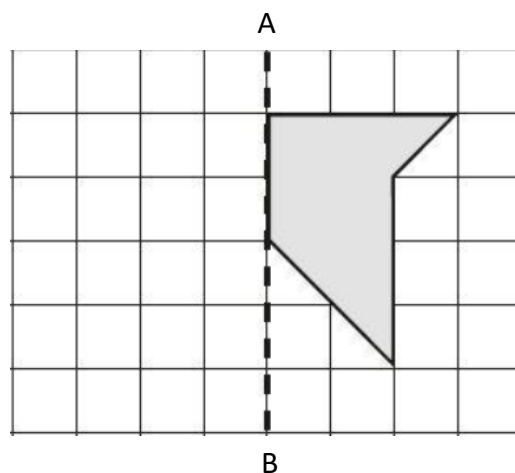
- ii) Calculate the total cost of the weekend break for the whole family.

Ans: _____

- iii) The Hotel Accommodation costs 75% of the total amount.
Work out 75% of the total amount.

Ans: _____

- b) Complete the shape using the line AB for line of symmetry.



(8 marks)

6. This is the calendar of June 2022.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

a) The first Tuesday of this month is a National holiday. What is the date?

Ans: _____

b) How many Thursdays are there in June 2022?

Ans: _____

c) Examinations start on Monday 13th and end on Tuesday 28th June.
How many school days are set for the examinations?

Ans: _____

d) On which day of the week is 2nd **July** 2022?

Ans: _____

(5 marks)

7. a) Fill in.

i) Start with 23 then add 12 each time.

23, _____, 47, _____, _____

ii) Start with 65 then subtract 9 each time.

65, _____, _____, 38, _____

b) Write down the rule for the sequence: 6, 12, 24, 48, 96

Start with _____ then _____ each time.

(6 marks)

8. a) Work out:

i) $\frac{3}{5} + \frac{3}{10} =$

ii) $\frac{7}{8} - \frac{1}{4} =$

Ans: _____

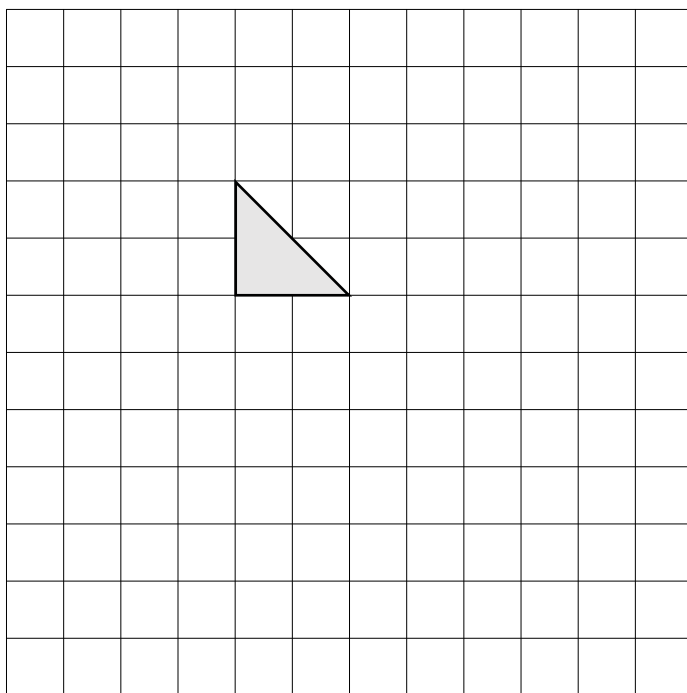
Ans: _____

b) Work out $\frac{5}{12}$ of €240

Ans: _____

(6 marks)

9. Draw another 4 triangles to show that this triangle can tessellate.



(4 marks)

10. a) Calculate the total area of the shape below.

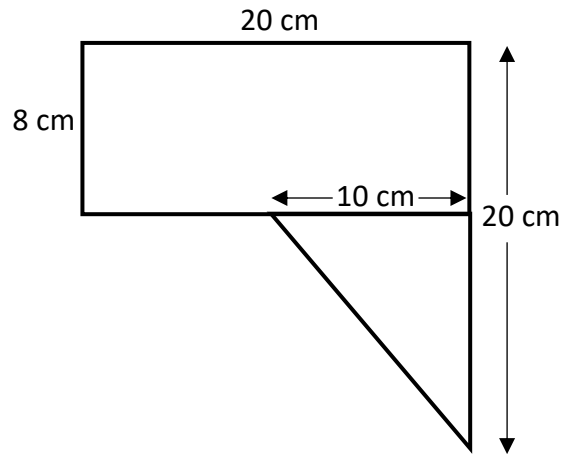


Diagram is not drawn to scale

Ans: _____ cm^2

b) Work out the volume of the cube.

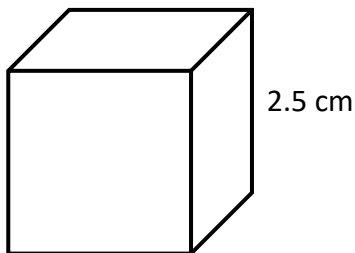


Diagram not drawn to scale

Ans: _____ cm^3

c) Fill in.

A circle has a diameter of 15 cm. The radius is _____ cm.

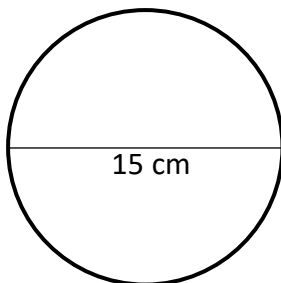
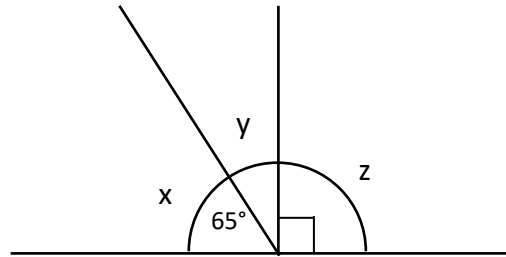


Diagram not drawn to scale

(11 marks)

11. a)



Fill in using:

acute angle	obtuse angle	right-angle	180°	360°
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i) Angle x is _____.

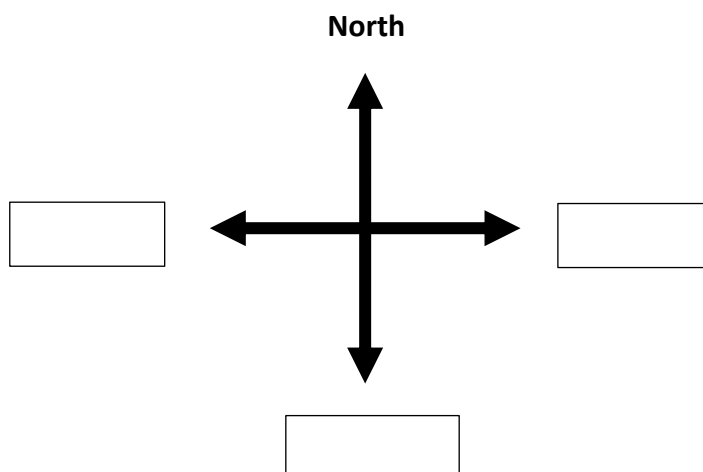
ii) Angle z is _____.

iii) $x + y + z =$ _____ $^\circ$.

b) Work out the size of angle y.

Ans: _____ $^\circ$

c) Fill in.



(8 marks)

END OF EXAMINATION

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