



Annual Examinations for Middle Schools 2024

YEAR 7	MATHEMATICS Main Paper	TIME: 1h 40min
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Question	1	2	3	4	5	6	7	8	9	10	11	12	13	Total Main	Non- Calc	Total
Mark																

DO NOT WRITE ABOVE THIS LINE

Name: _____ Class: _____

Answer ALL questions.
Calculators are allowed. All necessary working must be shown.

1. a) Write the number 5 803 000 in words.

b) i) Find 50% of 982 416.

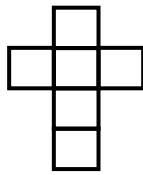
Ans: _____

ii) Round your answer in i) to the nearest thousand.

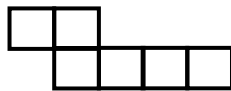
Ans: _____

(4 marks)

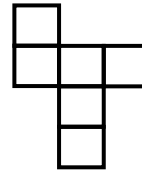
2. a) Choose the three nets that form a cube.



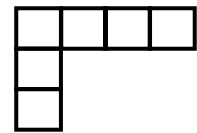
Net A



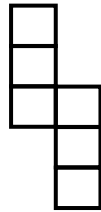
Net B



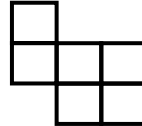
Net C



Net D



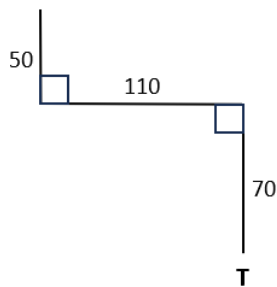
Net E



Net F

Ans: Nets _____, _____ and _____

- b) Continue the LOGO commands below to draw the shape below.
Start from position T.



PD

FD 70

LT _____

(7 marks)

3. A group of 156 tourists goes on a harbour trip by boat.

- a) Each boat carries 15 persons. Work out the number of boats needed to carry all the tourists.

Ans: _____

- b) The cost of hiring a boat is €187.50. Work out the total cost of hiring boats for this group.

Ans: _____

- c) The group of tourists is given a 15% discount on the total cost.

- i) Work out the discount, correct to 2 decimal places.

Ans: _____

- ii) How much will the group of tourists pay after the discount?

Ans: _____

(8 marks)

4. Aunt Dora invites 120 people to her 50th birthday party at Lacey's Restaurant. Three-fifths of the people invited are adults, 30% are children aged between 3-16 years while the rest are infants under 3 years.
- a) Work out the number of adults invited to the party.

Ans: _____

- b) Work out the number of infants under 3 years.

Ans: _____

Aunt Dora needs to choose between two menus for her birthday party at Lacey's Restaurant.

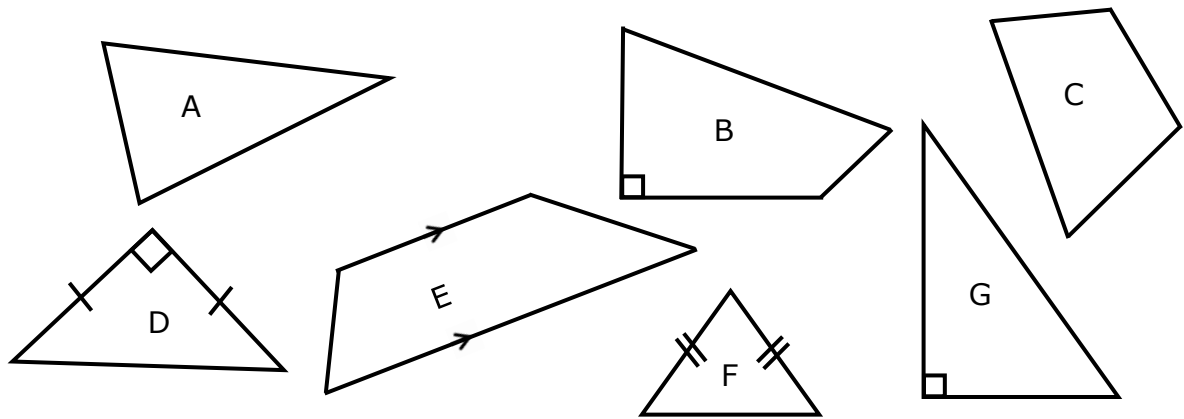
Menu A	Menu B
Adults: 15 different items @ €2.25 per item per person	Adults: A table with 20 different items per person to be set up in the adults' area for €2200
Children (3-16 years): Chicken nuggets and chips @ €2.50 per order *Infants under 3 years eat for free	Children (3-16 years): A table with 10 different items per child to be set up in the kids' area for €40 *Infants under 3 years eat for free
Ice-cream for 120 persons @ €60	Ice-cream for 120 persons @ €60

- c) Find which menu offers the cheaper option and by how much. Show all necessary working.

Ans: Menu _____ is cheaper by _____.

(10 marks)

5. a) Complete the Carroll diagram with the letters of the shapes below.
Shape A has been done for you.



	One right angle	No right angles
Two equal sides		
No equal sides		A

- b) Which two of the above shapes have only one line of symmetry?

Ans: _____, _____

(5 marks)

6. a) Solve the equation.
 $5(x + 6) = 70$

Ans: $x =$ _____

- b) Given that $x = 7$, $y = 11$ and $z = 4$, find the value of:

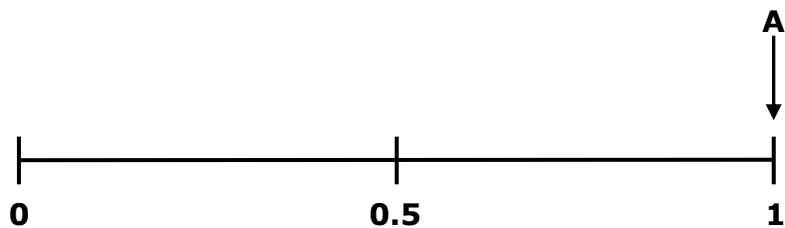
$$6x + 3(y + z)$$

Ans: _____

(6 marks)

7. The five statements below are related to a set of numbers from 1 to 10.
Mark each statement on the probability scale below. The first one is done for you.

- A The probability of choosing a positive number.
- B The probability of choosing an even number.
- C The probability of choosing a negative number.
- D The probability of choosing a factor of 4.
- E The probability of choosing a multiple of 2 or 3.



(4 marks)

8. The picture below represents the sketch of a house.

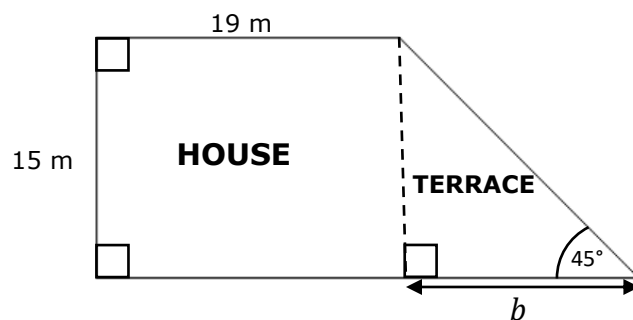


Diagram not drawn to scale

- a) Underline the correct answer.
The terrace is in the form of (an isosceles; a scalene; an equilateral) triangle.
 - b) What is the length of the terrace marked b ?
- Ans: _____
- c) Show that the total area of the house and the terrace is 397.5 m^2 .

Ans: _____

(6 marks)

9. Below is part of the 2024 calendar.

2024

January							February							March						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3						1	2
7	8	9	10	11	12	13	4	5	6	7	8	9	10	3	4	5	6	7	8	9
14	15	16	17	18	19	20	11	12	13	14	15	16	17	10	11	12	13	14	15	16
21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23
28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30
														31						

April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						

- a) How many Sundays are there in the first six months of 2024?
Ans: _____
- b) Jessica’s birthday is on the 10th of July. What day of the week will it be?
Ans: _____
- c) Christmas Day is celebrated on the 25th of December. What day of the week was Christmas 2023?
Ans: _____
- d) Is 2024 a leap year? Explain.

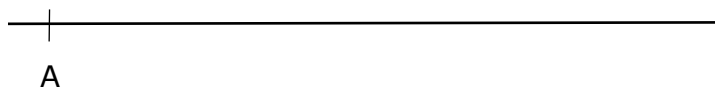
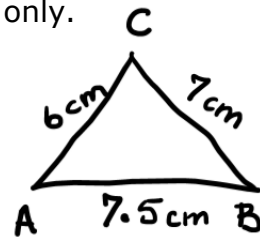
(4 marks)

10. The price of a product in six different pharmacies is listed below.
€7.45 €7.49 €7.49 €7.53 €7.56 €7.60

- a) Work out the mean price.
Ans: _____
- b) Work out the median price.
Ans: _____
- c) What is the modal price?
Ans: _____
- d) Calculate the range.
Ans: _____

(7 marks)

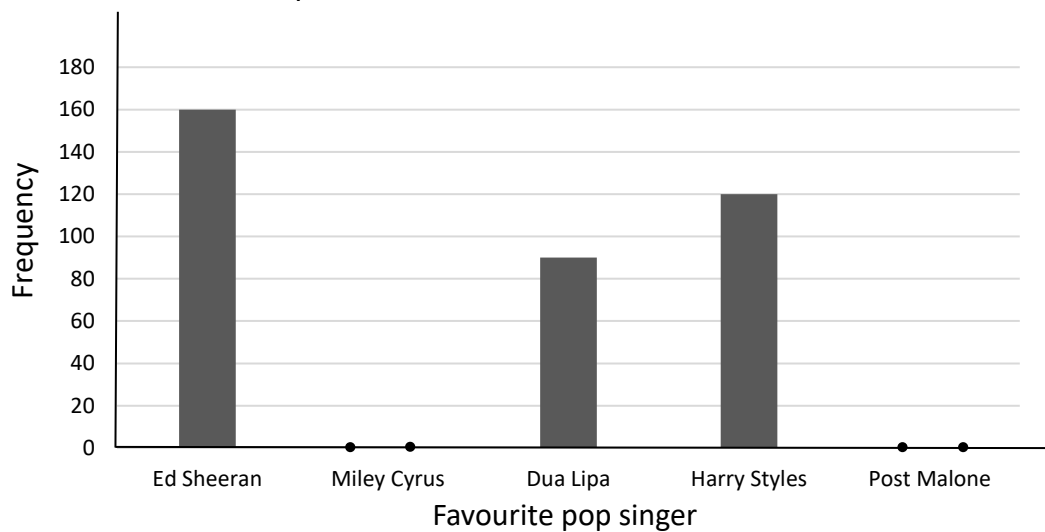
11. a) Construct triangle ABC using ruler and compasses only.
Point A is marked for you.



- b) Measure angle B.

Angle B = _____
(5 marks)

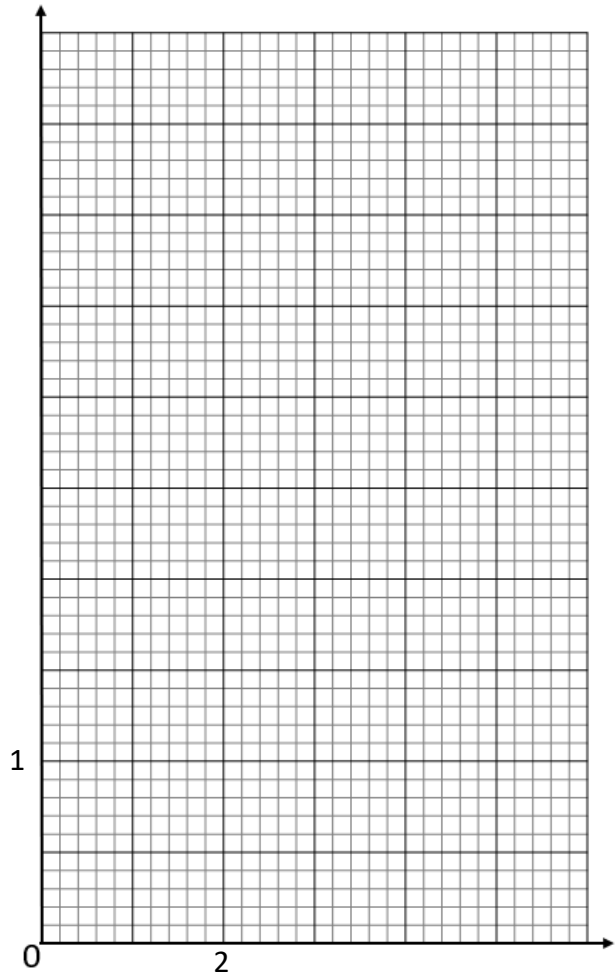
12. A group of 500 students were asked to choose their favourite pop singer.
The bar chart below represents the students' choice.



- a) How many students like Dua Lipa? Ans: _____
- b) Twice as many students like Ed Sheeran than Miley Cyrus.
Calculate how many students like Miley Cyrus.
Ans: _____
- c) Work out the number of students that like Post Malone.
Ans: _____
- d) Draw the two remaining bars to complete the bar chart.

(5 marks)

13. a) Use the equation $y = \frac{1}{2}x$ to fill in the y -coordinates.
 (0 , ____) (2 , ____) (4 , ____) (6 , ____)
- b) Complete the scale on both axes.
- c) Draw the graph of $y = \frac{1}{2}x$.



- d) Use your graph to find the value of x when $y = 2.5$.
 Ans: $x = \underline{\hspace{2cm}}$
- e) Use your graph to find the value of y when $x = 3$.
 Ans: $y = \underline{\hspace{2cm}}$

(9 marks)

End of Main Paper