

Annual Examinations for Secondary Schools 2022

YEAR 11

MATHEMATICS
Main Paper

TIME: 45 minutes

1	2	3	4	5	6	7	8	9	10	11	Main	Non-Calculator	Global Mark

DO NOT WRITE ABOVE THIS LINE

Name: _____

Class: _____

Instructions to Candidates

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

1. Write the following numbers in order, starting from the smallest:

(a) 120 8 50 19 105

Ans: _____, _____, _____, _____, _____

(b) -3 5 2 -7 -1

Ans: _____, _____, _____, _____, _____

(6 marks)

2. Convert:

(a) 29.3 kg = _____ g

(b) 81 mm = _____ cm

(c) 32 litres = _____ ml

(d) A pencil costs €1.25, a rubber costs 80c and a ruler costs €1.65. How much do they cost altogether? Give your answer in Euro.

Ans: € _____

(10 marks)

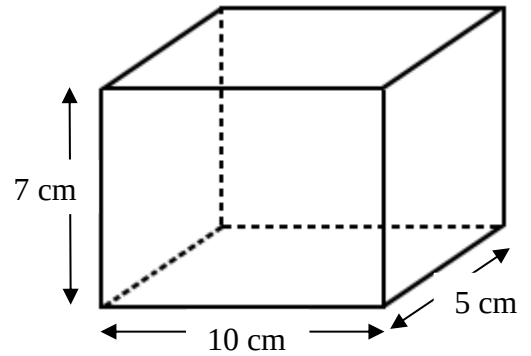
3. Complete the table by filling in the number of faces, edges and vertices.

Shape	Faces	Edges	Vertices
Cube	6	12	8
Triangular prism			
Square based pyramid			

(6 marks)

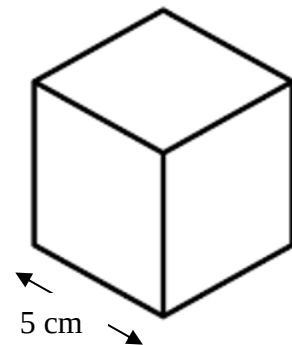
4. Calculate the volume of:

(a) A cuboid 10 cm long, 5 cm wide, and 7 cm high.



Ans: _____ cm^3

(b) A cube of side 5 cm.

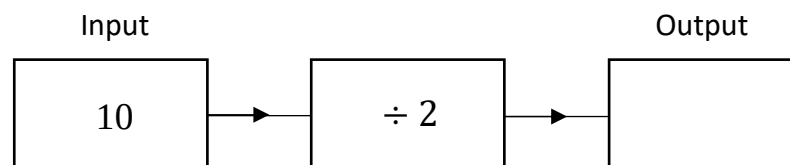


Ans: _____ cm^3

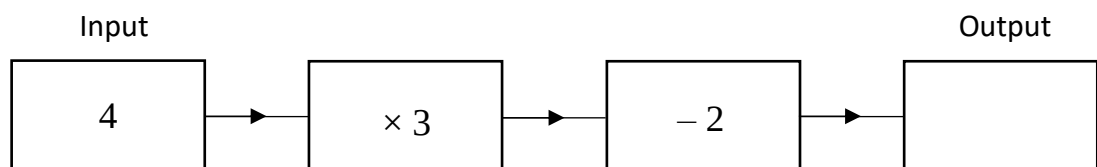
(4 marks)

5. Fill in the output of the following number machines:

(a)



(b)



(5 marks)

6. (a) How many 100 ml cups can be filled from a 2-litre bottle?

Ans: _____ cups

- (b) A racing track is 2.5 km long. Ralph completes 6 laps. Calculate the total distance covered by Ralph. Give your answer in metres.

Ans: _____ m

(6 marks)

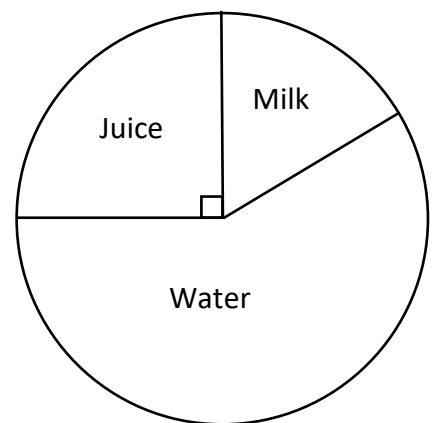
7. (a) The pie chart shows the type of drink some students had for breakfast.

- (i) Which was the least favourite drink?

Ans: _____

- (ii) Which drink was preferred by 25% of the students?

Ans: _____



- (b) A bag contains 9 counters. 3 are black, 4 are grey and the rest are white. One counter is picked at random from the bag.

- (i) What is the probability that the counter is grey?

Ans: _____

- (ii) What is the probability that the counter is white?

Ans: _____

(5 marks)

8. (a) Convert:

(i) 2:15 p.m. to 24-hour clock

Ans: _____

(ii) 17:45 to 12-hour clock

Ans: _____

(b)

JULY 2022						
Mon	Tue	Wed	Thur	Fri	Sat	Sun
				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	31

(i) Use the calendar above to find the number of Fridays in July 2022.

Ans: _____

(ii) On which day does the 1st of **August** 2022 fall?

Ans: _____

(iii) How many **weekends** are there from 9th July 2022 to the 24th July 2022?

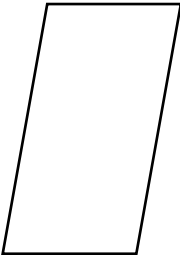
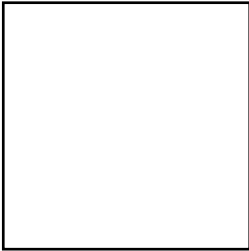
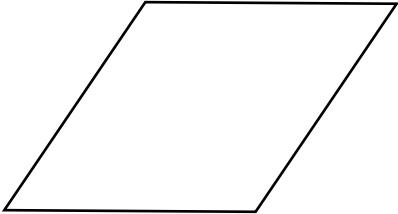
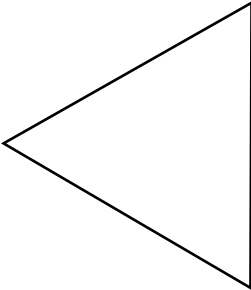
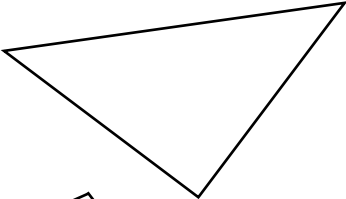
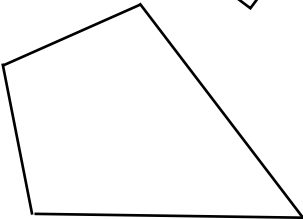
Ans: _____

(c) School starts at 07:45 and finishes at 14:15.
How long is a school day?

Ans: _____ hours _____ minutes

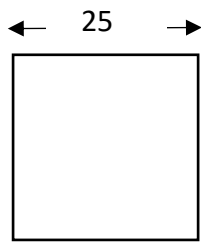
(10 marks)

9. Match by drawing arrows.

Name	Shape
Equilateral triangle	
Right angled triangle	
Square	
Rhombus	
Parallelogram	
Kite	

(6 marks)

10. (a) A side of a square is 25 cm long. Calculate:

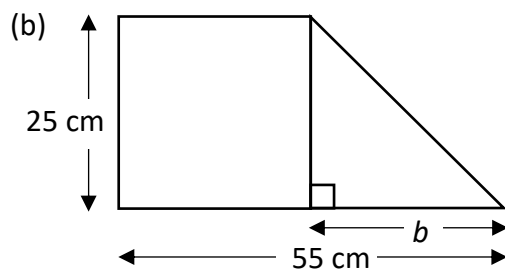


- (i) the perimeter of the square;

Ans: _____ cm

- (ii) the area of the square.

Ans: _____ cm²



This compound shape is made up of a square and a triangle. Calculate:

- (i) the base of the triangle, marked b ;

Ans: $b =$ _____ cm

- (ii) the area of the triangle.

Ans: _____ cm²

- (c) Work out the area of the compound shape.

Answer: _____ cm²

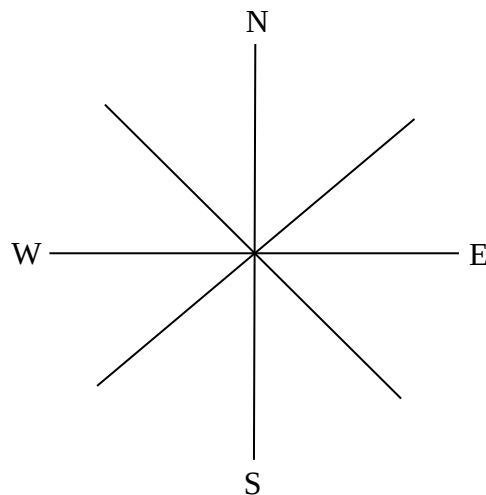
(11 marks)

11. (a) Underline the correct angle:

(i) A whole turn is: 45° 90° 180° 360°

(ii) An angle on a straight line is: 45° 90° 180° 360°

(b) (i) Mark the **obtuse** angle between **Northeast** and **South** .



(ii) What is the size of the angle marked in part (i) in degrees?

Answer: _____^o

(6 marks)

END OF EXAMINATION