



Kulleġġ San Nikola Sekondarja Subien Naxxar
 St Nicholas College Boys Secondary Naxxar
Half-Yearly Examinations February 2015

**Track
1**

FORM 3

MATHEMATICS

TIME: 1 hr 30 min.

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	Main	NC	Global Mark
Mark																

DO NOT WRITE ABOVE THIS LINE

Name: _____

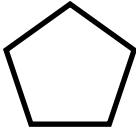
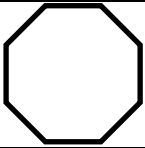

Class: _____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 75 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. Write the name of each polygon and state whether it is **regular** or **irregular**:

Polygon	Name of Polygon	Regular or Irregular
		
		
		

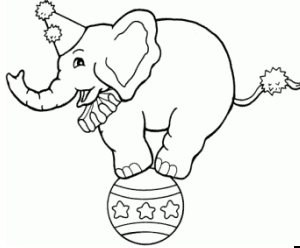
(6 marks)

2. Fill in this table. Show all your working.

Units		Units
8.3m	=	<u>830</u> cm
4 kg	=	_____ g
8.5cm	=	_____ mm
_____ litres	=	6000ml
3.6 km	=	_____ m
_____ kg	=	9120 g

(10 marks)

3. This is a poster of a CIRCUS SHOW.

ENJOY OUR CIRCUS SHOW					
START TIME	Monday to Saturday	16:30		20:30	
	Sunday	09:00	13:00	17:00	21:00
TICKETS	Adults	€6.00			
	Children	€2.75			

a) Each show lasts $2\frac{1}{4}$ hours.

i) Write this time in hours and minutes.

Ans: ____ hr ____ mins

ii) At what time does the **second** show finish on **Tuesday**?

Ans: _____

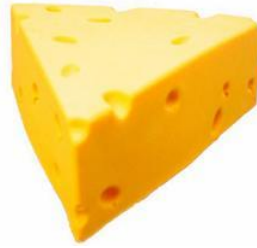
b) On Sunday, Mr. and Mrs. A. Borg and their 3 children visited the circus show. What was the total cost of their circus tickets?

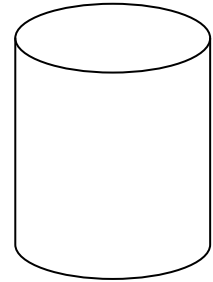
Ans: _____

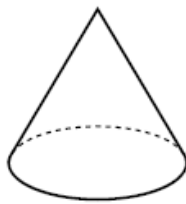
(6 marks)

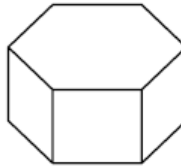
4. a) Which of these objects are **prisms**? Tick the box underneath the prisms.

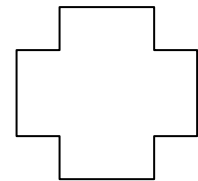












b) **Underline** the correct word.



- i) The **name of this shape** is a
(kite, cube, parallelogram)
- ii) The **opposite angles** are
(equal, right angles, supplementary)
- iii) The **opposite sides** are
(perpendicular, parallel, adjacent)

(5 marks)

5. Vanessa types the following LOGO commands:

PD REPEAT 4 [FD 50 RT 90]

a) What is the **shape** that the turtle draws? _____

b) Give the **perimeter**, in turtle steps, of this shape. _____ *turtle steps*

(3 marks)

6. a) Jake is at a shopping centre.
He will be watching a film.

At the **entrance floor**, Jake presses the wrong lift button and the lift does not take him to the cinema floor.

Jake, then goes up **6 floors** to get to the right floor.

- i) Which button does he press first?

- ii) Fill in the missing number.

$$\boxed{} + 6 = 4$$

- b) Work out:

$$2 - 3 = \boxed{}$$

$$-3 + 4 - 5 = \boxed{}$$



(4 marks)

7. a) Complete the following sequences:

i) 2, 5, 8, ____, ____.

ii) 2, 3, 5, 8, ____, ____.

- b) Arrange the following numbers in **ascending order**, smallest first:

23.01	23.1	23	20.3	23.001
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_____, _____, _____, _____, _____

(6 marks)

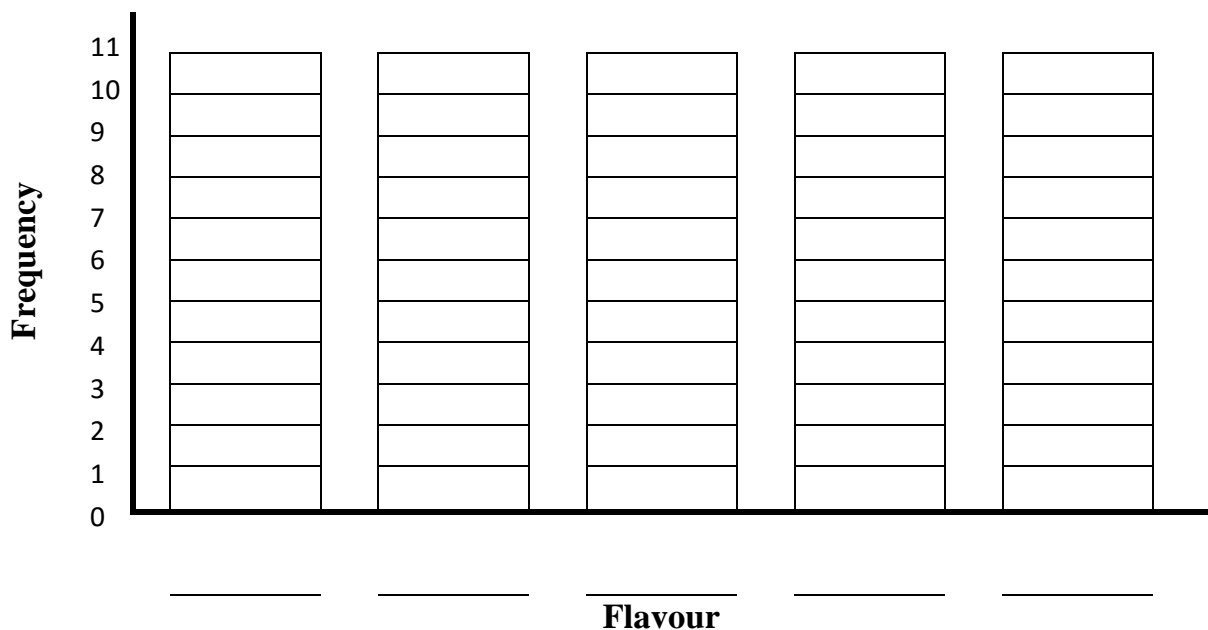
8. During a tasting session, visitors are asked which is their preferred yoghurt. This is the list of their preferences.

Cherry Banana Strawberry Cherry Banana
Peach Kiwi Banana Strawberry Banana
Peach Banana Strawberry Banana Cherry
Cherry Peach Banana Peach Banana
Peach Banana Kiwi Strawberry Kiwi

- a) Use the above information to complete the following frequency table.

Flavour	Tally	Frequency
Cherry		
Banana		
Kiwi		
Strawberry		
Peach		
	Total	25

- b) Label and complete a bar graph on the grid below to show the above data.



(7 marks)

9. Last year, Andrew finished the **21 km** half marathon in **1.5 hours**.

a) What was his **speed** in km/hr?



Ans: _____ km/hr

b) This year, after some training, he **increased** his speed to 16 km/hr.

Will he finish the half marathon in less or in more time, if he runs at this speed?

Ans: More Less

(3 marks)

10. Solve the following equations:

i) $a + 7 = 12$

ii) $b - 7 = 5$

Ans: $a =$ _____

Ans: $b =$ _____

iii) $5c = 20$

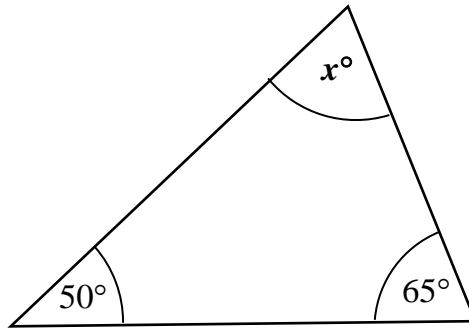
iv) $\frac{d}{4} = 5$

Ans: $c =$ _____

Ans: $d =$ _____

(8 marks)

11. a)



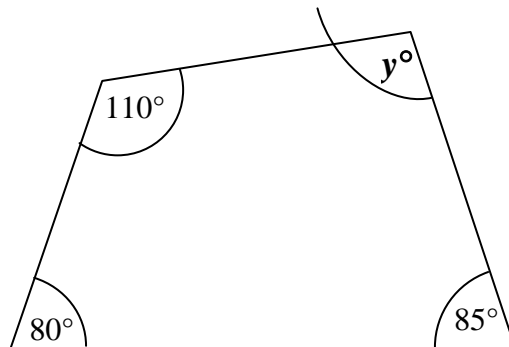
i) Calculate the value of the missing angle x .

Angle $x =$ _____^o

ii) What is this type of triangle called?

Ans: _____

b)

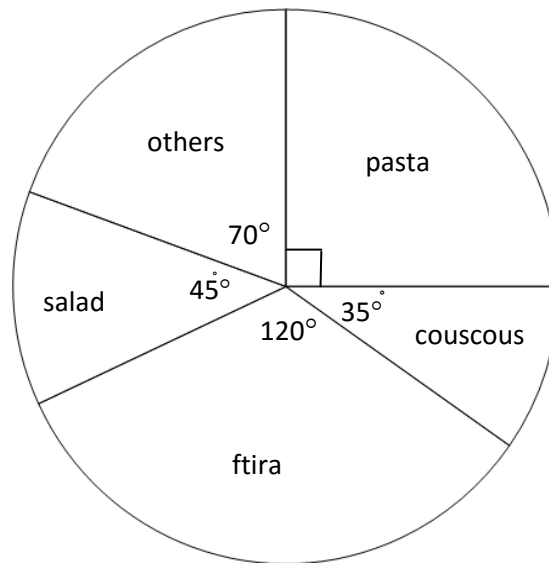


Work out the size of the unknown angle y .

Angle $y =$ _____^o

(5 marks)

12. The pie-chart shows what the students in a school prefer to buy from the canteen.



- (a) **400 students** take part in the survey.
How many students like **pasta** as their favourite food?

Ans: _____

- (b) Which food is the **most** popular with students?

Ans: _____

- (c) Which food is chosen by **half** as many students as pasta?

Ans: _____

- (d) What fraction of all the students taking part in the survey, prefer **ftira**?
Give your answer in its **lowest form**.

Ans: _____

(6 marks)

13. a) In Malta VAT is added at **18%**.

Before adding VAT, the cost of a coat is **€210**.

i) Calculate the VAT to be added to the price of this coat.



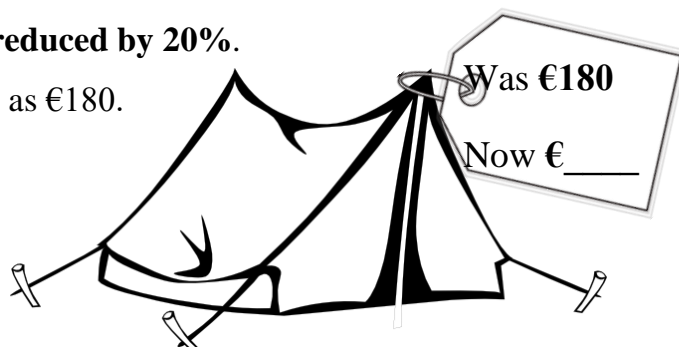
Ans: € _____

ii) What is the **selling price** after VAT is added?

Ans: € _____

b) In a camping shop all prices are **reduced by 20%**.

John buys a tent that was marked as €180.



i) How much money does John **save**, during the sale?

Ans: € _____

ii) What is the **reduced** price that John pays for this tent?

Ans: € _____

(6 marks)