

KULLEĠĠ SAN BENEDITTU

Secondary School, Kirkop

Mark

HALF YEARLY EXAMINATION – 2015/2016

TRACK 1

FORM 3

MATHEMATICS Track 1

TIME: 30 mins

Non Calculator Paper

Question	1	2	3	4	5	6	7	8	9	NC
Max. Mark	3	4	2	3	2	3	2	3	3	25
Mark										

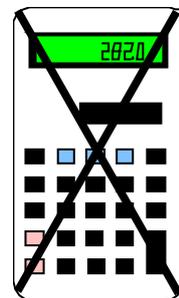
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NAME AND SURNAME: _____ CLASS: _____

INSTRUCTIONS TO CANDIDATES:

Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 25 marks.
- **Calculators, protractors** and other mathematical instruments are **NOT ALLOWED**.
- On your desk you should have nothing except for **pen, pencil, ruler** and the **examination paper**.

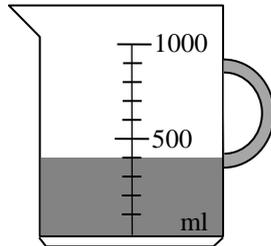


1. a) Fill in

i) $1 \frac{1}{2}$ hr = _____ minutes

ii) _____ km = 2000 metres

b)



This jug has _____ ml of water.

(3 marks)

2. a) Work out:

i) $\frac{4}{9} - \frac{2}{9}$

ii) $\frac{1}{2} + \frac{2}{5} =$

Ans: _____

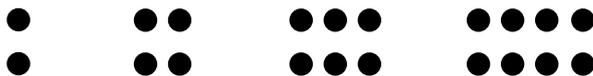
Ans: _____

b) Circle the **two** equivalent fractions:

$\frac{3}{4}$, $\frac{1}{2}$, $\frac{2}{7}$, $\frac{4}{8}$, $\frac{4}{3}$

(4 marks)

3. a) Draw the **next pattern**



Pattern 1

Pattern 2

Pattern 3

Pattern 4

b) How many dots are there in **Pattern 7**?

Ans: _____ dots

(2 marks)

4. a) Work out:

i) $4 - 5$

ii) $4 - (-5)$

Ans: _____

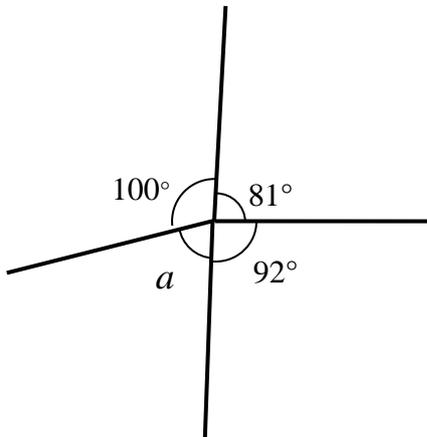
Ans: _____

b) The weather temperature in the afternoon is **23 °C**. In the evening the temperature **drops by 2 °C**. What is the temperature in the evening?

Ans: _____ °C

(3 marks)

5. Work out the size of **angle a**



Ans: $a =$ _____

(2 marks)

6. a) Fill in:

$$50\% = \frac{\boxed{}}{100} = \frac{\boxed{}}{2}$$

b) A jacket costs **€80 before** the sale.
Work out its price **during** the sale.



**50%
OFF**

Ans: € _____

(3 marks)

7. Anna is solving the equation $2a + 1 = 5$. Anna's answer is $a = 2$.

Is her answer correct? **YES** **NO**

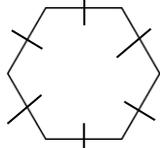
Show your working.

(2 marks)

8. Tick (✓) **True** or **False**.

a) A **triangle** is a polygon with **three** sides. **True** **False**

b) A **four** sided polygon is called a **pentagon**. **True** **False**

c)  This shape is a regular **hexagon**. **True** **False**

(3 marks)

9. A bottle of cola costs €1 and a bottle of lemonade costs €2.

James buys c bottles of cola and ℓ bottles of lemonade.

The formula for the total money spent is $TOTAL = 1c + 2\ell$

a) Work out the **TOTAL** when James buys 3 bottles of cola and 4 bottles of lemonade.

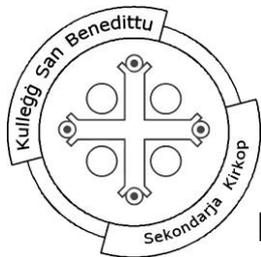
Ans: € _____

b) How many bottles of cola and bottles of lemonade can James buy for a **TOTAL** of €7?

Ans: _____ bottles of cola and _____ bottles of lemonade

(3 marks)

END OF PAPER



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HALF YEARLY EXAMINATION – 2015/2016

TRACK 1

FORM 3

MATHEMATICS TRACK 1

TIME: 1 hr 30 mins

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Main	NC	Global Mark
Max. Mark	4	2	6	5	4	6	6	8	8	8	3	6	4	5	75	25	100
Mark																	

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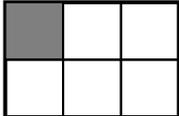
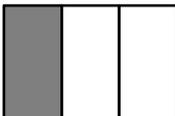
NAME AND SURNAME: _____ CLASS: _____

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. Work out the following and give your answers in the simplest form.

a)  + 

Ans: _____

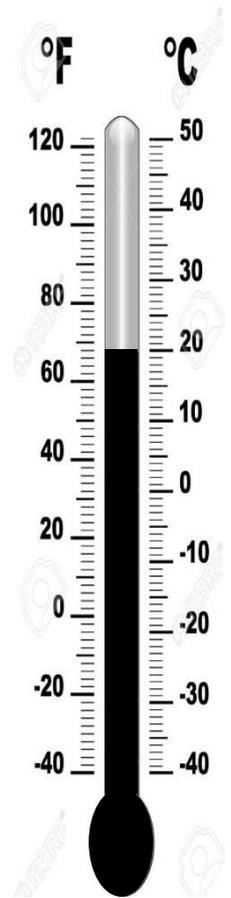
b) $\frac{3}{5} - \frac{3}{10}$

Ans: _____

(4 marks)

2. a) The temperature in °C is _____.

b) The temperature in °F is _____.

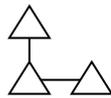


(2 marks)

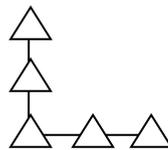
3.



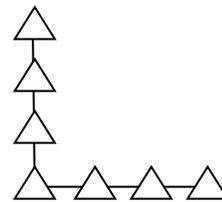
Shape 1



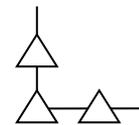
Shape 2



Shape 3



Shape 4

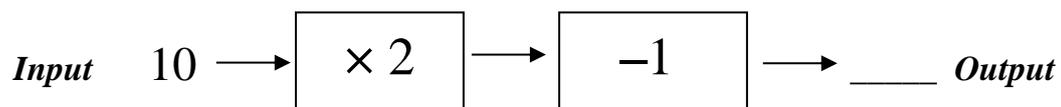


Shape 5

a) Complete **Shape 5** in the space provided.

b) Shape 7 has _____ triangles.

c) **Complete** this function machine which gives the number of triangles in **Shape 10**.



(6 marks)

4. The table shows the time Mario takes to walk between three places in Malta.

	Naxxar	Mdina	Gudja
Naxxar		2 hours	4 hours
Mdina	2 hours		3 hours
Gudja	4 hours	3 hours	

a) The **time** taken to walk between:

i) Naxxar and Mdina is _____ hours.

ii) Gudja and _____ is 3 hours.



b) Mario walks at 6 km per hour.

What is the **distance** he travels between Mdina to Naxxar **and back**?

Ans: _____ km

(5 marks)

5. Draw lines to match the following:

TIME

LITRES

VOLUME

METRES

WEIGHT

GRAMS

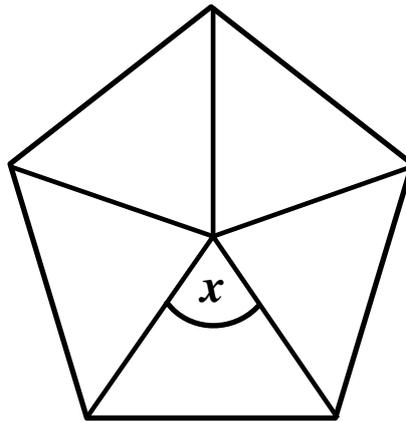
DISTANCE

MINUTES

(4 marks)

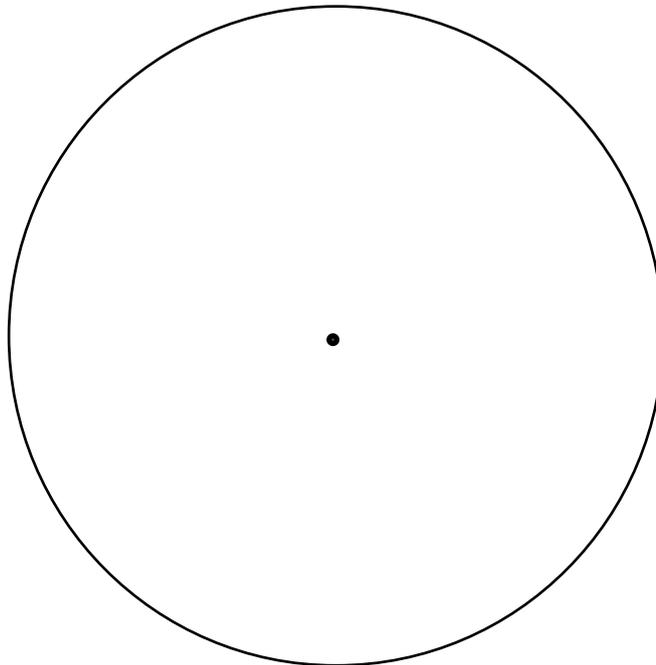
6. The diagram shows a regular pentagon.

a) Work out the size of angle x .



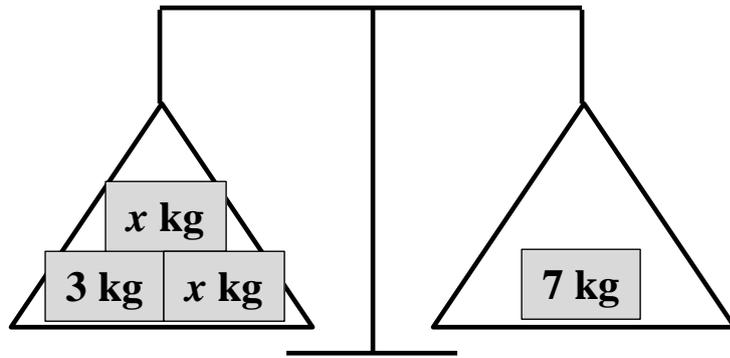
Ans: _____^o

b) Use your protractor to draw a regular octagon (**8 sides**) inside the circle.



(6 marks)

7. a) Calculate the value of x .



$x =$ _____

b) Solve these equations.

i) $a - 9 = 5$

ii) $4b = 24$

iii) $2c - 3 = 15$

$a =$ _____

$b =$ _____

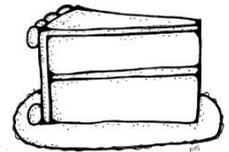
$c =$ _____

(6 marks)

8. a) **40%** of Crispy Cake is sugar.

i) In 100 g of Crispy Cake, there is _____ g sugar.

ii) How much sugar is there in 250 g of Crispy Cake?



Ans: _____ g

b) Charlene weighs 90 kg. She **loses** 10% of her weight.

i) Work out 10% of 90 kg.

Ans: _____ kg

ii) What is Charlene's weight after the weight loss?

Ans: _____ kg

(8 marks)

9. These are the marks obtained by eleven students in a test.

11 12 17 23 41 48 60 60 60 65 76

a) The **median** mark is _____.

b) Work out the **mean** mark.

Ans: _____

c) The **mode** is _____.

d) Work out the **range**.

Ans: _____

e) Jeremy obtained a mark of 60 in the test.
Give a reason to explain that this is a good mark.

(8 marks)

10. a) Simplify the expression: $9a + 3b - 2a + 5b$

Ans: _____

b) Factorise the expression: $9x + 3y$

Ans: _____

c) Work out the value of $3x + 5y - 3z$ given that $x = 2$, $y = 3$ and $z = 4$.

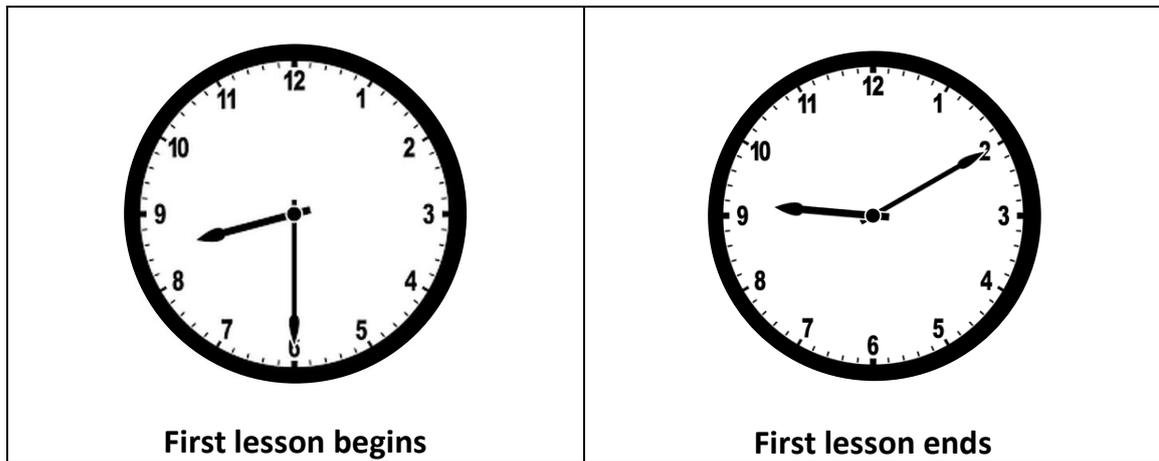
Ans: _____

d) Expand $3(2x - 4y)$

Ans: _____

(8 marks)

11.



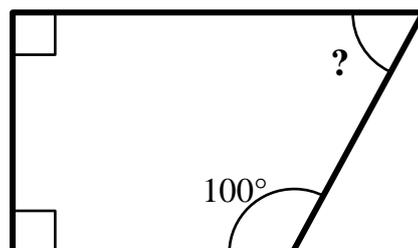
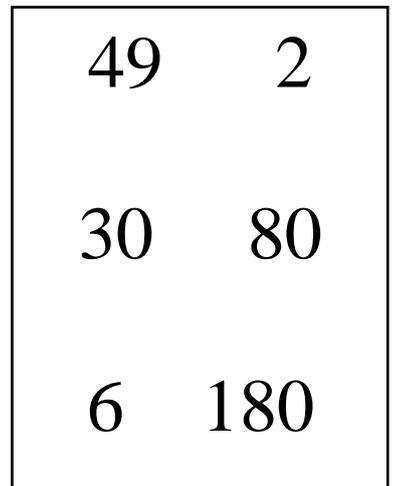
Fill in.

- a) The first lesson begins at _____ past _____ .
b) The first lesson is _____ minutes long.

(3 marks)

12. Choose the correct numbers from the box to complete the following:

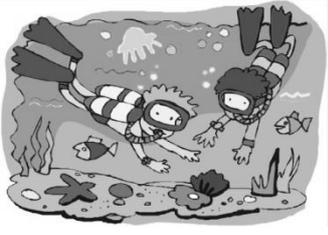
- a) 25 correct to the nearest 10 is _____.
b) A square number between 45 and 55 is _____.
c) The length of a door is about _____ m.
d) The angles of a triangle add up to _____.
e) A hexagon is a shape with _____ sides.
f) The missing angle in the diagram below is _____ .



(6 marks)

13. Use the numbers below to fill in the blanks.

2355 m $-8\text{ }^{\circ}\text{C}$ $200\text{ }^{\circ}\text{C}$ -5 m

 <p>Temperature</p> <p>_____</p>	 <p>Height</p> <p>_____</p>	 <p>Height</p> <p>_____</p>	 <p>Temperature</p> <p>_____</p>
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(4 marks)

14. a) Kaya has €50 in her bank account. After her birthday party, she adds €20. She draws €100 to buy a mobile phone. What is the new balance?

Ans: _____

- b) Kevin is in a lift at Level -4 . He has to reach Level 8 . How many floors does the lift have to travel upwards?

Ans: _____ floors

(5 marks)

END OF EXAM