DEPARTMENT FOR CURRICULUM,
LIFELONG LEARNING AND EMPLOYABILITY
Directorate for Learning and Assessment Programmes
Educational Assessment Unit

Track 3

Annual Examinations for Middle Schools 2022

YEAR 8 **MATHEMATICS** **TIME: 30 minutes**

NON-CALCULATOR PAPER

Question	1	2	3	4	5	6	Total
Mark							

DO NOT WRITE ABOVE THIS LINE

Name: _____ Class: _____

Instructions to Candidates

- **Answer ALL questions.**
- **This paper carries a total of 25 marks.**
- **Calculators and protractors are NOT ALLOWED.**
- **All necessary working must be shown.**

1. Work out:

a) $3 + (-5) =$ _____ b) $-4 \times (+7) =$ _____

c) $(+10) - (+5) =$ _____ d) $-2 \div (-1) =$ _____

(4 marks)

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2. a) Robert says "All the factors of 70 are even numbers". Is he right?

i) Robert is (right, wrong). Underline the correct answer in the brackets.

ii) Explain your answer.

_____

_____

b) Marco says, "The sum of two prime numbers is always even."

Write down an example to show that he is wrong.

_____

(3 marks)

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3. Calculate the **surface area** of this shape.

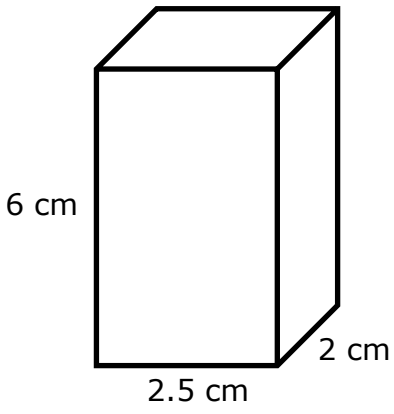
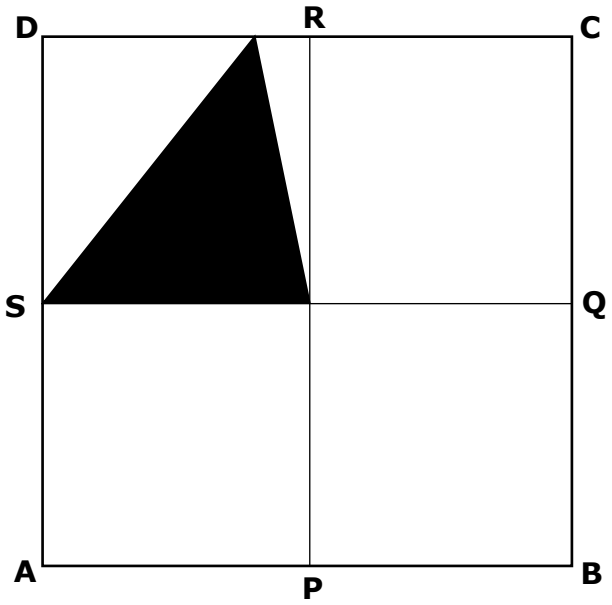


Diagram is not drawn to scale

Ans: _____ cm^2

(4 marks)

4.



ABCD is a square with an area of 240 cm^2. Points P, Q, R and S are the midpoints of the sides of the square. Find the area of shaded triangle.

Ans: _____ cm^2

(2 marks)

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5. Five athletes are training for a race. The time taken to complete a 400 m race track is recorded in the table below:

Athlete	Time taken
Michael	2 mins 10 sec
Sarah	2 mins 40 sec
Joanne	1 min 55 sec
Maria	2 mins 20 sec
Alex	2 mins 35 sec

a) Who was the fastest runner?

Ans: _____

b) Work out the range of the time taken by the athletes to complete the race.

Ans: _____

c) What is the median time?

Ans: _____

(4 marks)

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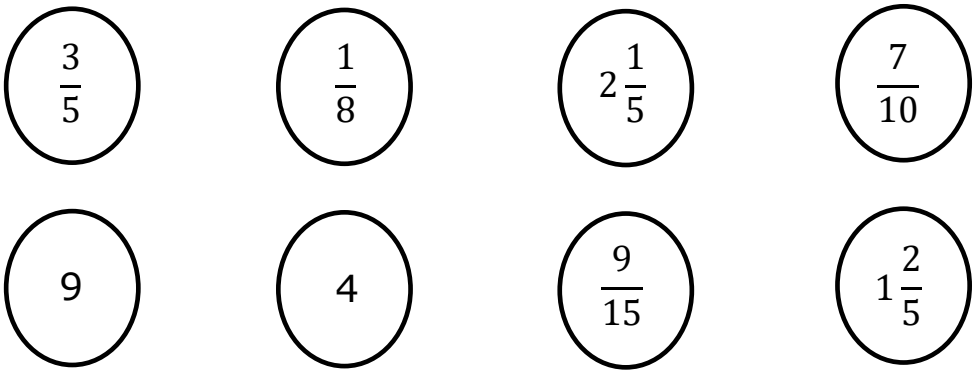
6. For each of the following statements, choose the correct answer from the circles below. Write your answer in the spaces provided in the table.



a) Two equivalent fractions	_____ and _____
b) A mixed number that is equal to $\frac{\mathbf{11}}{\mathbf{5}}$	_____
c) Work out: $1\frac{3}{10} - \frac{3}{5}$	_____
d) Work out: $2\frac{3}{4} \times \frac{1}{22}$	_____
e) Work out: $6 \div 1\frac{1}{2}$	_____

(8 marks)

End of Non-Calculator Paper