

Candidate Name	School Name
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## JUNIOR SECONDARY SEMI – EXTERNAL EXAMINATION

### MATHEMATICS

**2200/1**

PAPER 1 (Short Questions)

1 hour

Marks 45

**2018**

No Additional Materials needed.

### INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Write your Candidate Name and School Name in the spaces on top of this page.
- Write your answers on the Question Paper.
- **All working must be shown clearly.**
- Write in dark blue or black pen.
- You may use a soft pencil for any rough work, diagrams or graphs.
- Do not use correction fluid.
- Do not write in the margin *For Examiner's Use*.
- Answer **all** questions.
- You may **NOT** use a calculator.
- If an answer is not exact, it should be rounded to **one** decimal place and for money give your answer to **two** decimal places.
- The number of marks is given in brackets [ ] at the end of each question or part question.

**For Examiner's Use**

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Marker

Checker

This document consists of **10** printed pages.



Republic of Namibia

**MINISTRY OF EDUCATION, ARTS AND CULTURE**

- 1 Calculate  $3 + 5 \times 2$ .

Answer ..... [1]

- 2 Arrange the following numbers in ascending order.

3.12; 3.05; 3.123; 3.04.

Answer .....<.....<.....<..... [1]

- 3 Round 9.4992 correct to two decimal places.

Answer ..... [1]

- 4 The ratio of sheep to goats in a kraal is 2 : 3 respectively.

If there are 15 goats, calculate the number of sheep in the kraal.

Answer ..... [2]

- 5 Given  $215 \div 19$ .

(a) Round each given number above correct to one significant figures.

Answer (a).....÷ ..... [2]

(b) Use your answer to (a) to find the estimated answer.

Answer (b) ..... [1]

- 6 Write down the base in  $a^n$ .

Answer ..... [1]

- 7 List all the factors of 21.

Answer..... [1]

- 8** On a winter day, the temperature at noon was  $10^{\circ}\text{C}$ . At midnight, it had fallen by  $12^{\circ}\text{C}$ .

Calculate the temperature at midnight.

Answer .....  $^{\circ}\text{C}$  [2]

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- 9** The number 225 can be written as a product of its prime factors as  $225 = 5^2 \times 3^2$ .  
Use  $5^2 \times 3^2$  to determine the square root of 225.

Answer ..... [1]

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- 10** Kudumo bought a calculator for N\$150.00. Later, he sold it to his friend for N\$180.00.

(a) Calculate his profit.

Answer (a) N\$ ..... [1]

(b) Express his profit as a percentage of the cost price.

Answer (b) ..... % [2]

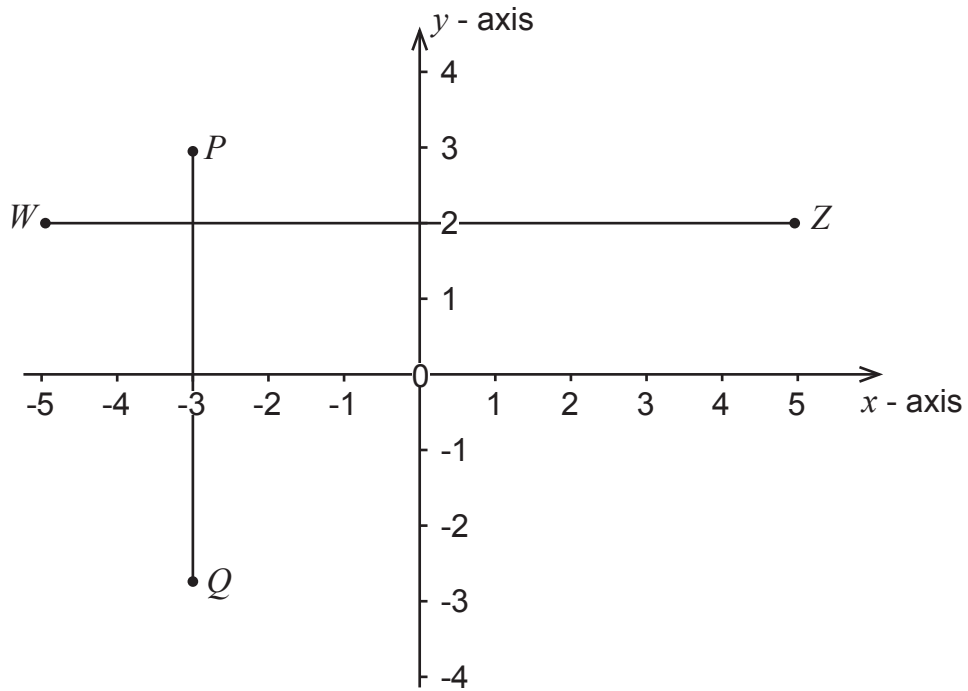
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- 11** Convert 3.5 ha to  $\text{m}^2$ .

Answer .....  $\text{m}^2$  [1]

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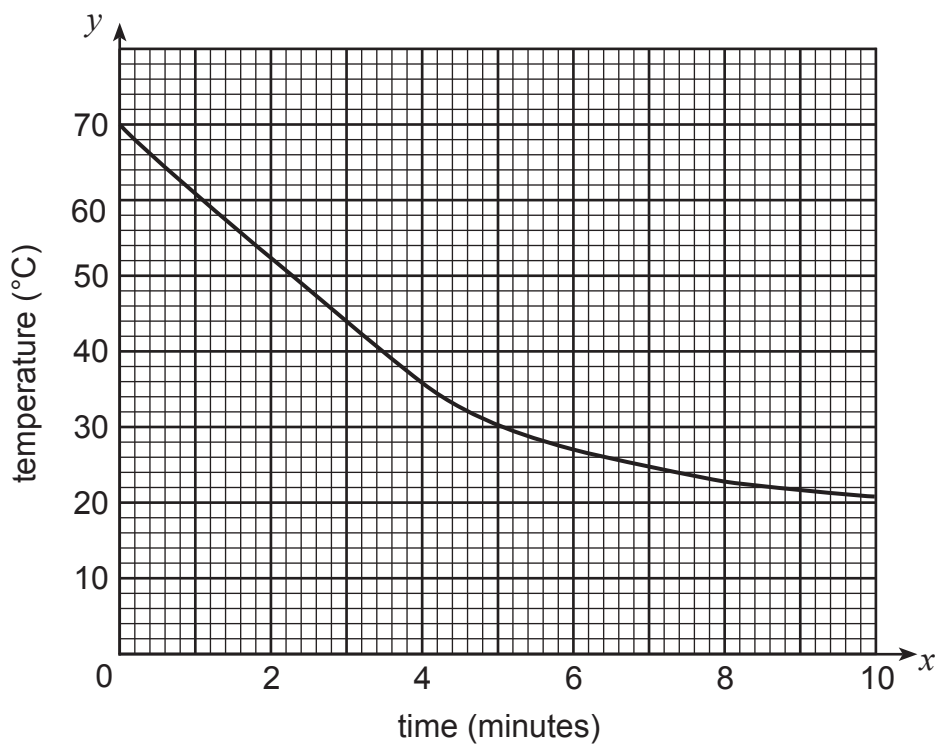
12 Line  $PQ$  and  $WZ$  are drawn on the grid below.



Write down the coordinates of the point of intersection of line  $PQ$  and  $WZ$ .

Answer (..... ; ..... ) [2]

- 13** The graph shows the change in temperature of tea after it has been poured into a cup.



Use the graph to answer the following questions.

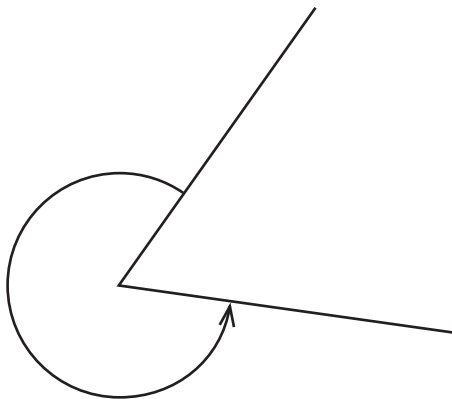
- (a)** What was the temperature of the tea after 5 minutes?

Answer **(a)** ..... °C [1]

- (b)** How long did it take for the tea to cool down to 45°C?

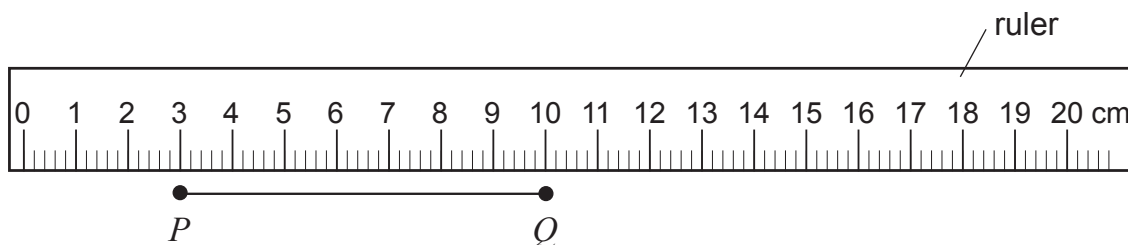
Answer **(b)** .....minutes [1]

14 (a) Name the type of angle shown.



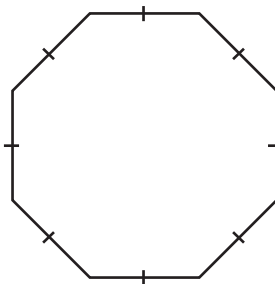
Answer (a) ..... [1]

(b) Use the ruler below and write down the length of line  $PQ$ .



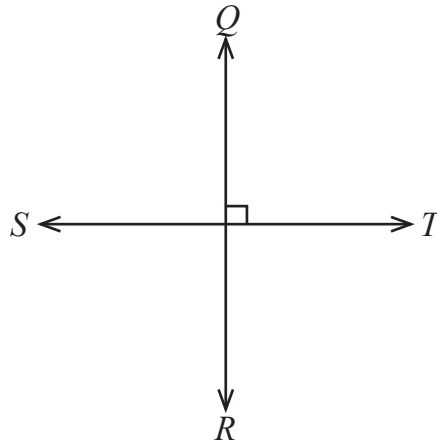
Answer (b) .....cm [1]

15 Give the name of the polygon shown below.



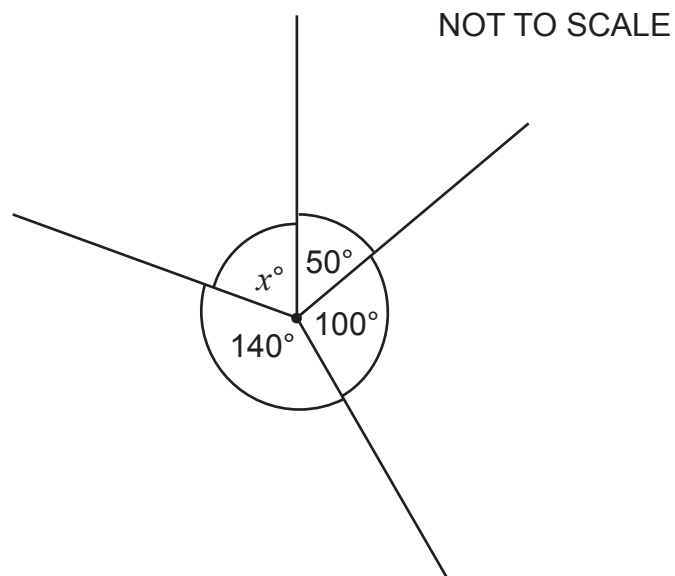
Answer..... [1]

- 16** Use the mathematical term to show the relationship between line  $ST$  and  $QR$ .



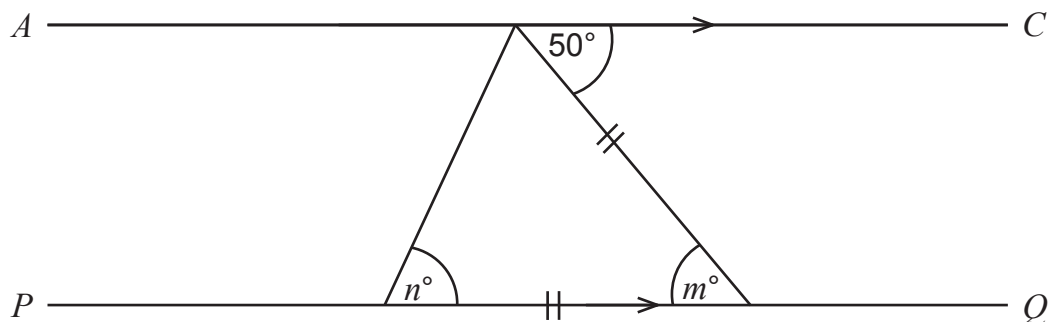
Answer ..... [1]

- 17** Calculate the value of  $x$ .



Answer  $x =$  .....° [2]

- 18** In the diagram line  $AC$  is parallel to line  $PQ$ .



Calculate the value of

- (a)  $m$ ,

Answer (a)  $m = \dots\dots\dots^\circ$  [1]

- (b)  $n$ .

Answer (b)  $n = \dots\dots\dots^\circ$  [2]

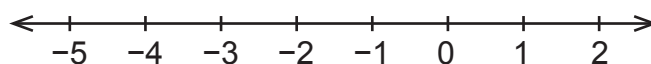
- 19** Write an algebraic expression for the sum of 4 and  $y$ .

Answer  $\dots\dots\dots$  [1]

- 20** Given that  $x = 3$  and  $y = -2$ , find the value of  $5x - 2y$ .

Answer  $\dots\dots\dots$  [2]

- 21** Represent  $x > -2$  on the number line below.



[1]

**22** Simplify

$$7x + 3y - 4x - y$$

Answer ..... [2]

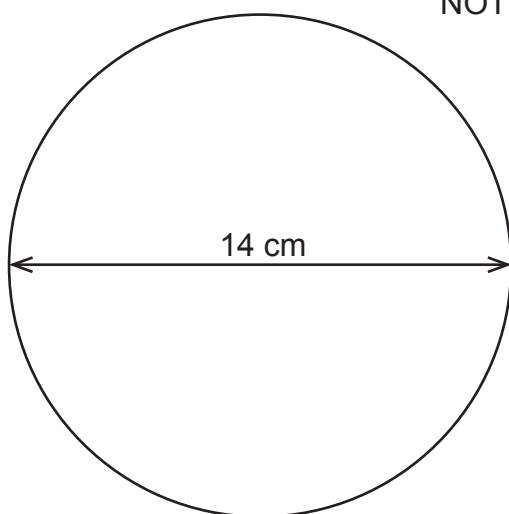
**23** Work out

$$4a(2a - 3b).$$

Answer ..... [2]

**24** The diameter of the circle is 14 cm.

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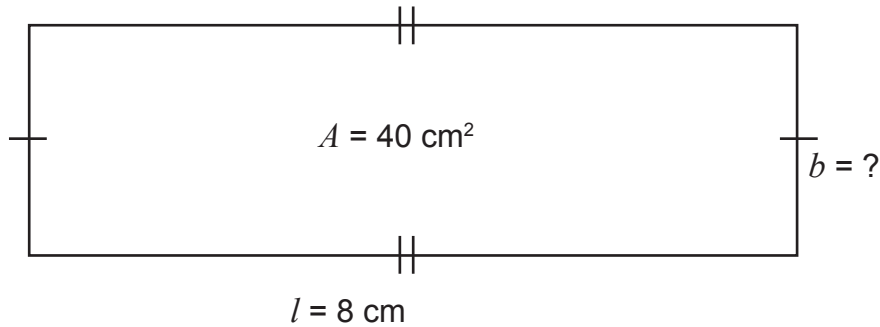


Calculate the circumference of the circle.

$$\text{Use } \pi = \frac{22}{7}.$$

Answer ..... [2]

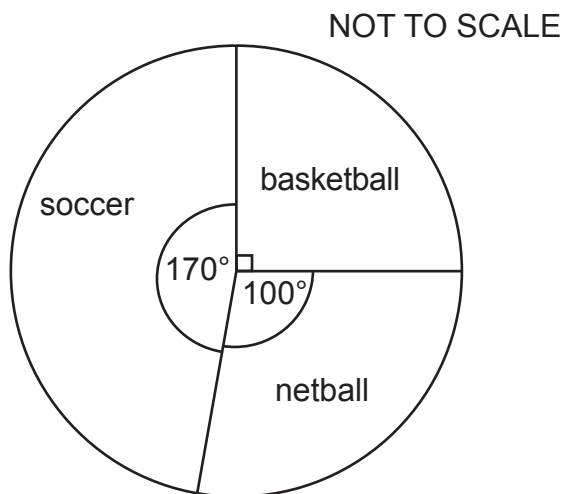
- 25** The area of the rectangle shown below is  $40 \text{ cm}^2$  and its length is  $8 \text{ cm}$ .



Calculate the breadth,  $b$ .

Answer  $b = \dots\dots\dots \text{cm}$  [2]

- 26** The pie chart shows favourite sport codes of 36 learners in a class.



Calculate the number of learners whose favourite sport code is basketball.

Answer..... learners [2]

- 27** Two strawberries, four oranges and one apple are placed in a box. One fruit is taken at random from the box.  
Find the probability that the fruit is an orange.

Answer..... [1]