Candidate Name	School Name

JUNIOR SECONDARY SEMI − EXTERNAL EXAMINATION

MATHEMATICS **2200/1**

PAPER 1 (Short Questions) 1 hour 30 minutes

Marks 45 **2019**

Additional Material: Ruler

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.
- Answers for money must be given correct to **two** decimal places.
- The number of marks is given in brackets [ ] at the end of each question or part question.

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

Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

1 Work out $(4 + 1) \times 2$.

Answer .... [1]

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2 Find the HCF (highest common factor) of 21 and 35.

Answer .... [1]

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3 Calculate

$\dfrac{3}{4} - \dfrac{1}{2}$.

Answer .... [1]

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4   13, 49, 76, 27

From the list of numbers write down

(a) a multiple of 3,

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

(b) a prime number,

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

(c) a square number.

Answer **(c)** .... [1]

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5 The number of students at a university increased from 2 500 to 3 000 in one year.
Calculate the percentage increase in the number of students.

Answer .... % [2]

6 Write 0.01752 correct to one significant figure.

Answer .... [1]

7 Write the following numbers in ascending order (smallest to largest).

−2.4, −3.1, −2.5

Answer ...., ..., ... [1]

8 Use >, < or = to make each statement true.

(a) $\frac{1}{4}$ .... 0.42 [1]

(b) $\frac{9}{4}$ .... $\frac{9}{7}$ [1]

(c) 3 × 2 − 6 .... 3^0 [1]

9 Azu invested N\$ 1 000 at a rate of 5% per year simple interest.
Calculate the interest she received at the end of 3 years.

Answer N\$ .... [2]

10 A shop has a sale of all items reduced by 20%.
Loide bought a watch on sale at N\$ 350.
Calculate the original price of the watch.

Answer N\$ .... [2]

[Turn over

11 **(a)** Find the value of $2p + q$ if $p = 3$ and $q = 7$.

Answer **(a)** .... [2]

(b) Solve for x

$2x - 9 = 1$.

Answer **(b)** $x =$ .... [2]

(c) Simplify $y^9 \div y^3$.

Answer **(c)** .... [1]

(d) Multiply out $(x^2)(x^2 + 3x - 2)$.

Answer **(d)** .... [2]

(e) Chris thought of a number, x, he multiplies it by 6 and subtracts 8.
Write an expression to represent this statement.

Answer **(e)** .... [1]

12 A farm has an area of 36 400 000 m².
Write down the area of the farm in hectares.

Answer .... ha [1]

13 (a)
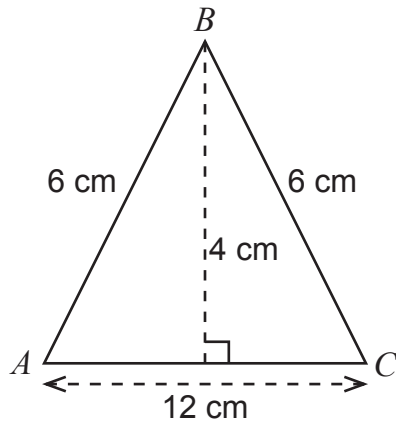
NOT TO SCALE

Calculate the area of triangle ABC.

Answer (a) .... cm² [2]

(b)
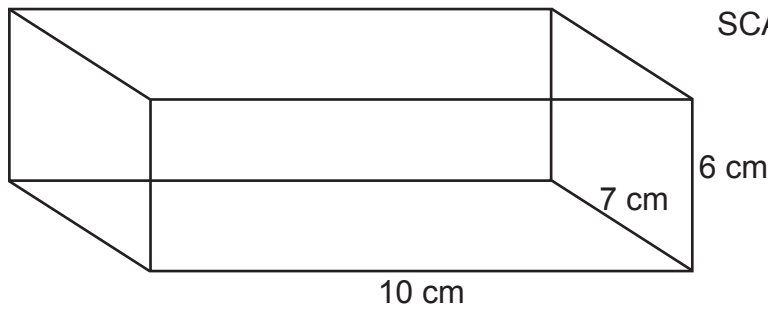
NOT TO SCALE

Calculate the volume of the cuboid.

Answer (b) .... cm³ [2]

[Turn over

14
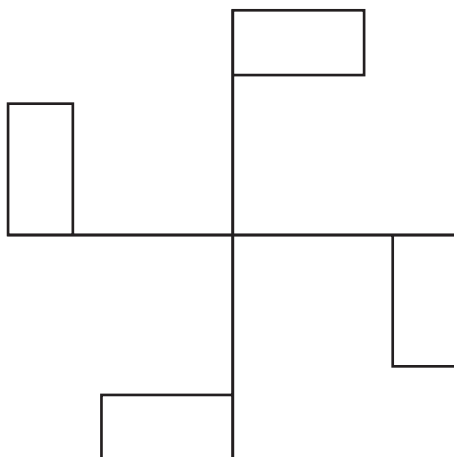
Write down the order of rotational symmetry of the shape above.

Answer .... [1]

15
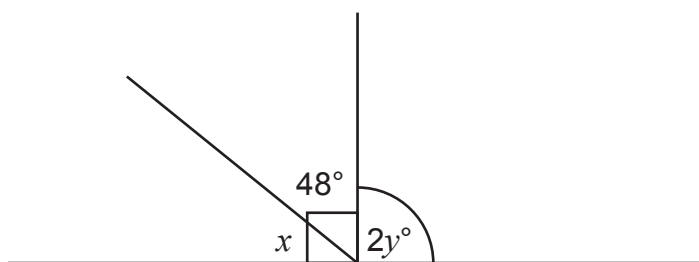
(a) (i) Find the value of angle x.

Answer **(a) (i)** x = ...° [1]

(ii) What type of angle is angle $x°$?

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

(b) Calculate the value of y.

Answer **(b)** y = ... [1]

16 Which pair of angles are complementary?
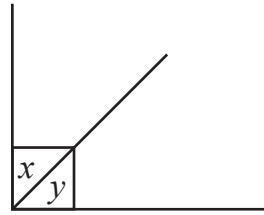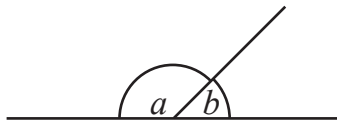
Answer................ and .... [1]

17
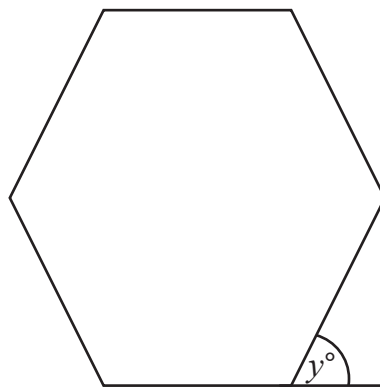
NOT TO SCALE

The diagram shows a regular hexagon.

Calculate the value of y.

Answer y =.................................° [2]

18
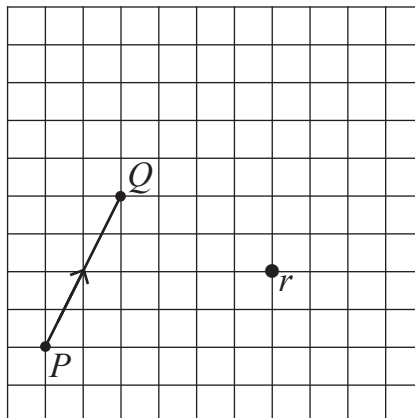
Draw a line passing through r which is parallel to PQ. [1]

[Turn over

19
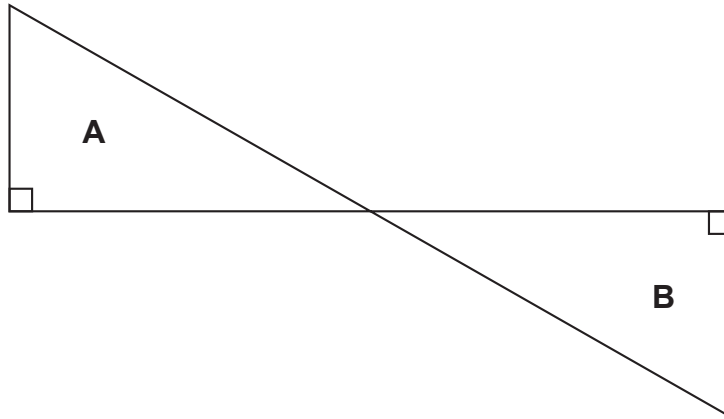
Identify the type of transformation that maps triangle **A** onto triangle **B**.
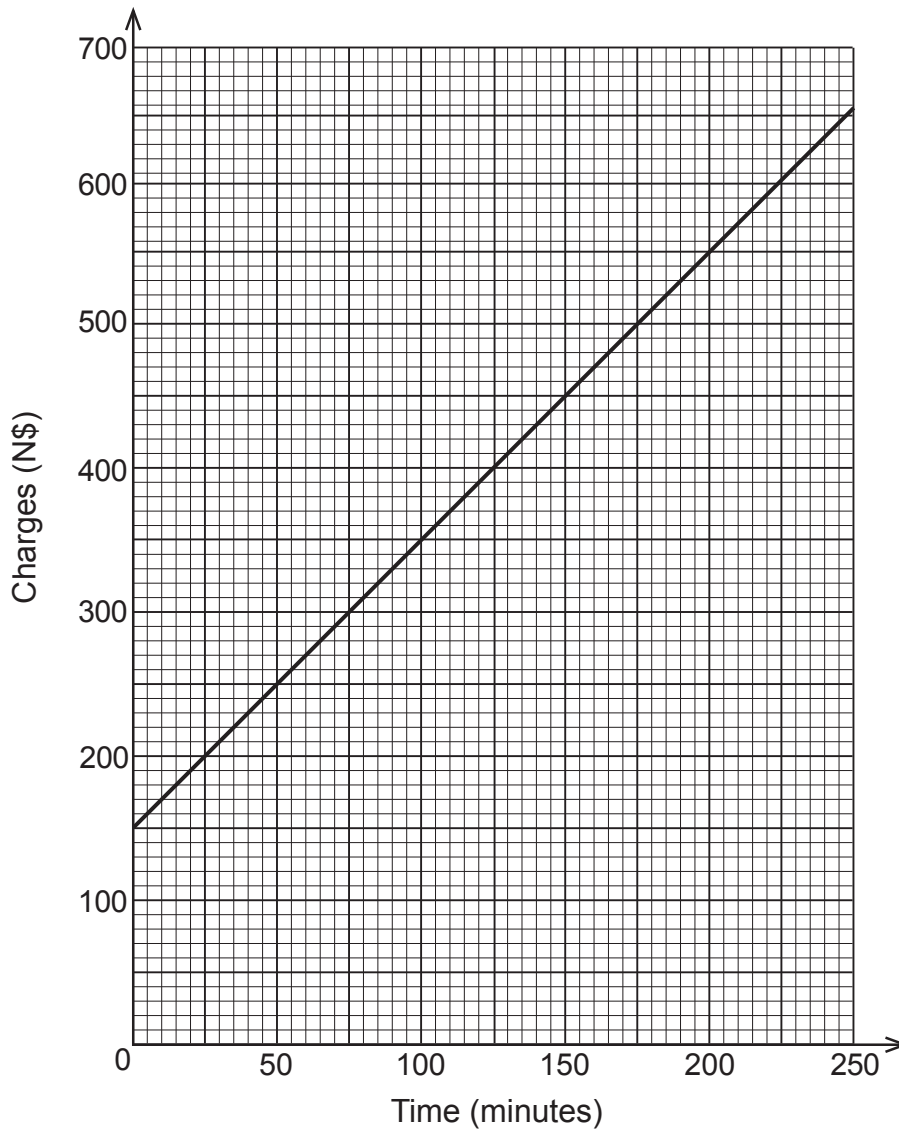
Answer .... [1]

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20 On the diagram, draw the line $y = -2$.
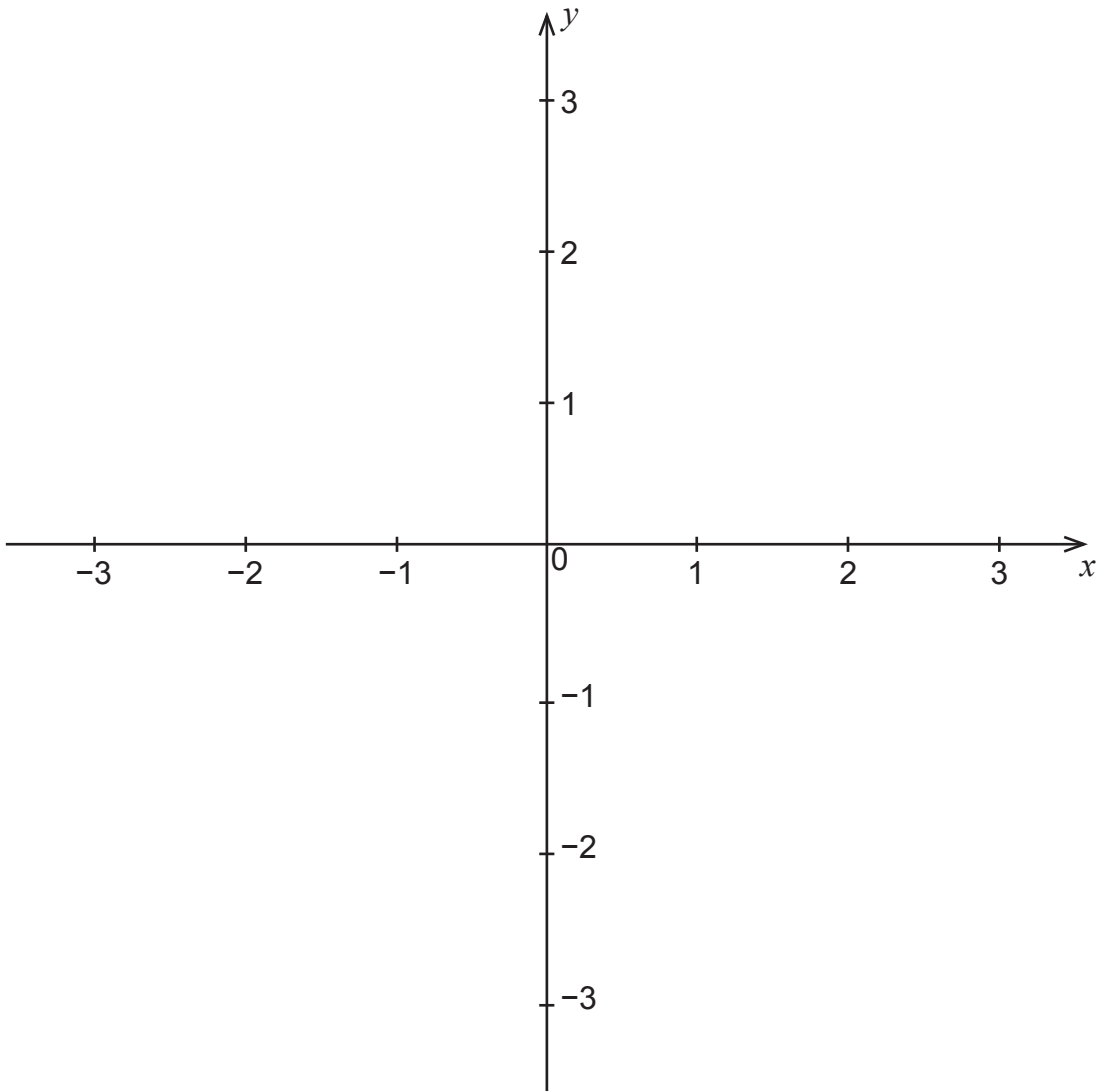
[1]

21 Steven has a telephone. The graph shows his monthly charges for calls up to 250 minutes.

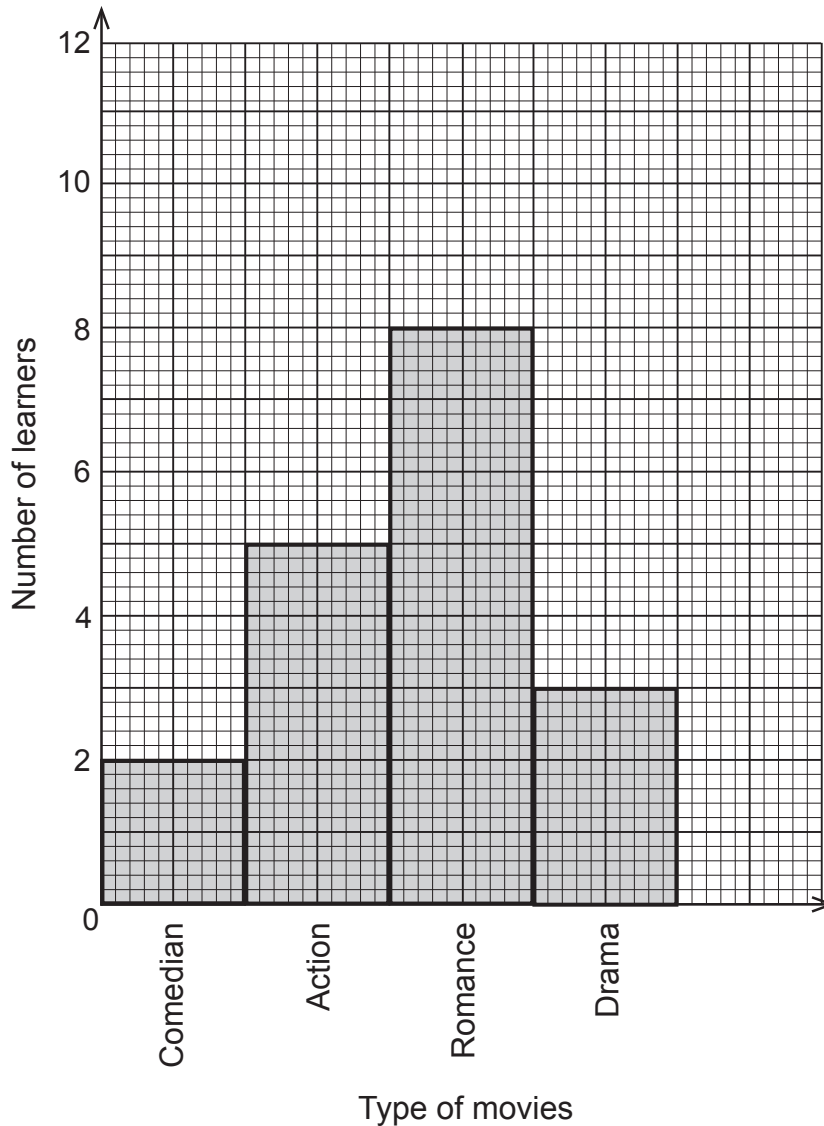**(a)** What is his basic monthly charge.

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

(b) How much does he pay for a 200 minutes call?

Answer **(b)** N$ ....   [1]

[Turn over

22 A bag contains a total of 10 coloured balls, of which 7 of them are blue.
Dave takes one ball out of the bag at random.
What is the probability that the ball is blue?

Answer .... [1]

23 The bar chart shows the types of movies liked by the learners in a class.

Type of movies

(a) Calculate the total number of learners in a class.

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

(b) Which type of movies is mostly liked?

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