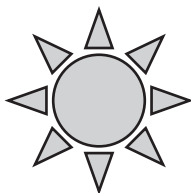


- 1 Write down the number seventy one thousand and seventy two in figures.

Answer [1]

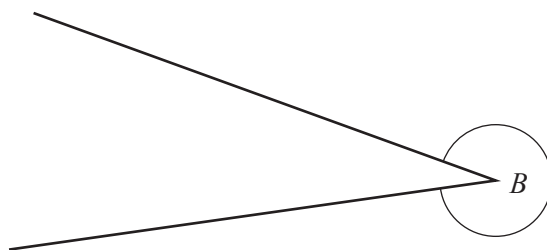
2



Write down the order of rotational symmetry of this shape.

Answer [1]

- 3 Measure the reflex angle at B .



Answer [1]

- 4 Work out $\frac{4}{9}$ of 153.

Answer [1]

- 5 1 euro = \$1.234 .

Change 155 euros into dollars.

Answer \$ [1]

- 6 (a) Write $\frac{4500}{5500}$ as a fraction in its simplest form.

Answer(a) [1]

(b) Write 0.73 as a fraction.

Answer(b) [1]

7 The probability that Raju arrives on time at school is 0.72 .

(a) Write down the probability that he will **not** arrive on time.

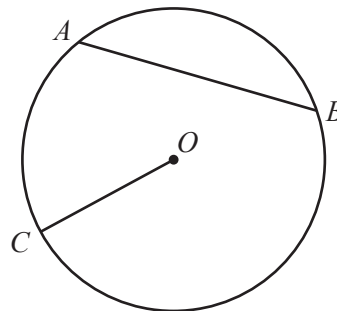
Answer(a) [1]

(b) Raju attends school on 200 days.

Work out the expected number of days he will arrive on time.

Answer(b) [1]

8 The diagram shows a circle, centre O .
 A , B and C are points on the circumference.



NOT TO SCALE

Write down the mathematical name of the straight line

(a) OC ,

Answer(a) [1]

(b) AB .

Answer(b) [1]

9 The point P has co-ordinates $(2, -5)$ and $\vec{PQ} = \begin{pmatrix} 6 \\ -7 \end{pmatrix}$.

(a) Write down the co-ordinates of Q .

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

(b) Write $4\vec{PQ}$ as a column vector.

Answer(b) $\begin{pmatrix} \\ \end{pmatrix}$ [1]

10 Find the lowest common multiple (LCM) of 24 and 32.

Answer [2]

- 11** The volume, V , of a cylinder with radius r and height h is $V = \pi r^2 h$.

Calculate the volume of a cylinder with radius 7 cm and height 8 cm.

Answer cm³ [2]

- 12** \$760 is invested for 3 years at a rate of 4.5% per year simple interest.

Work out the total interest at the end of the 3 years.

Answer \$ [2]

- 13 (a)** Simplify

(i) x^0 ,

Answer(a)(i) [1]

(ii) $m^4 \times m^3$.

Answer(a)(ii) [1]

(b) Solve $5x^3 = 40$.

Answer(b) $x =$ [1]

- 14** Ahmed, Batuk and Chand share \$1000 in the ratio 8 : 7 : 5.

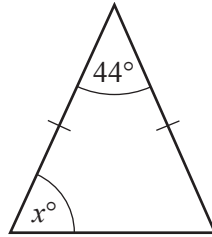
Calculate the amount each receives.

Answer Ahmed \$

Batuk \$

Chand \$ [3]

15 (a)

NOT TO
SCALE

The diagram shows an isosceles triangle.

Find the value of x .

Answer(a) $x =$ [1]

(b) (i) The exterior angle of a regular polygon is 24° .

Find the number of sides of this regular polygon.

Answer(b)(i) [2]

(ii) Write down the mathematical name for a 5-sided polygon.

Answer(b)(ii) [1]

16 Without using your calculator, work out $2\frac{7}{9} \div \frac{5}{6}$.

Give your answer as a fraction in its lowest terms.

You must show each step of your working.

Answer [4]

17 6 8 14 36 47 50 130

From the list of numbers, write down one number for each of the following.

- (a) An odd number. *Answer(a)* [1]
- (b) A square number. *Answer(b)* [1]
- (c) A factor of 70. *Answer(c)* [1]
- (d) A multiple of 26. *Answer(d)* [1]
-

- 18 (a) Solve the simultaneous equations.
You must show all your working.

$$\begin{aligned} 4x + 2y &= 31 \\ 6x - 2y &= 34 \end{aligned}$$

Answer(a) $x =$

$y =$ [2]

- (b) Factorise $14p^2 + 21pq$.

Answer(b) [2]

- 19 Idris has c toy cars.

Fadl has twice as many cars as Idris.

Baasim has three more cars than Fadl.

- (a) Write down an expression, in terms of c , to complete each statement.

Fadl has cars.

Baasim has cars. [2]

- (b) Write down an expression, in terms of c , for the total number of cars the three children have.
Give your answer in its simplest form.

Answer(b) [2]

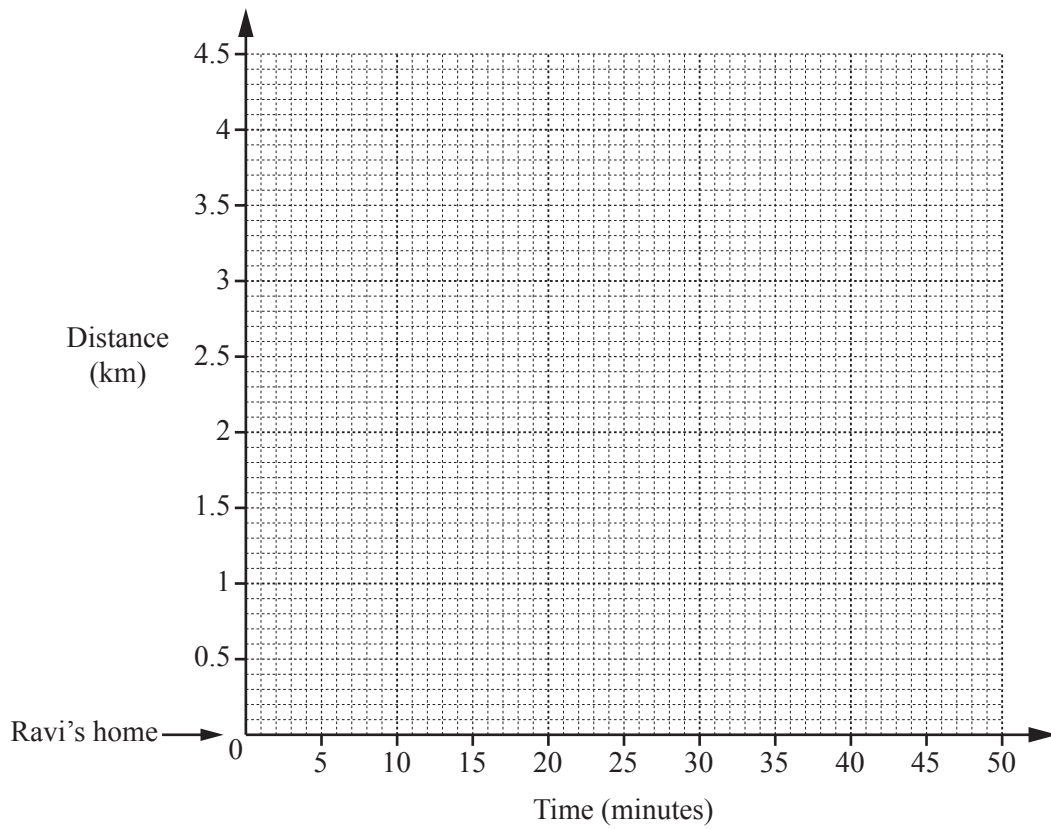
- 20** Ravi cycles from home to the bank.
It takes him 15 **minutes**, cycling at a constant speed of 14 km/h.

(a) Work out how far Ravi cycles from home to the bank.

Answer(a) km [1]

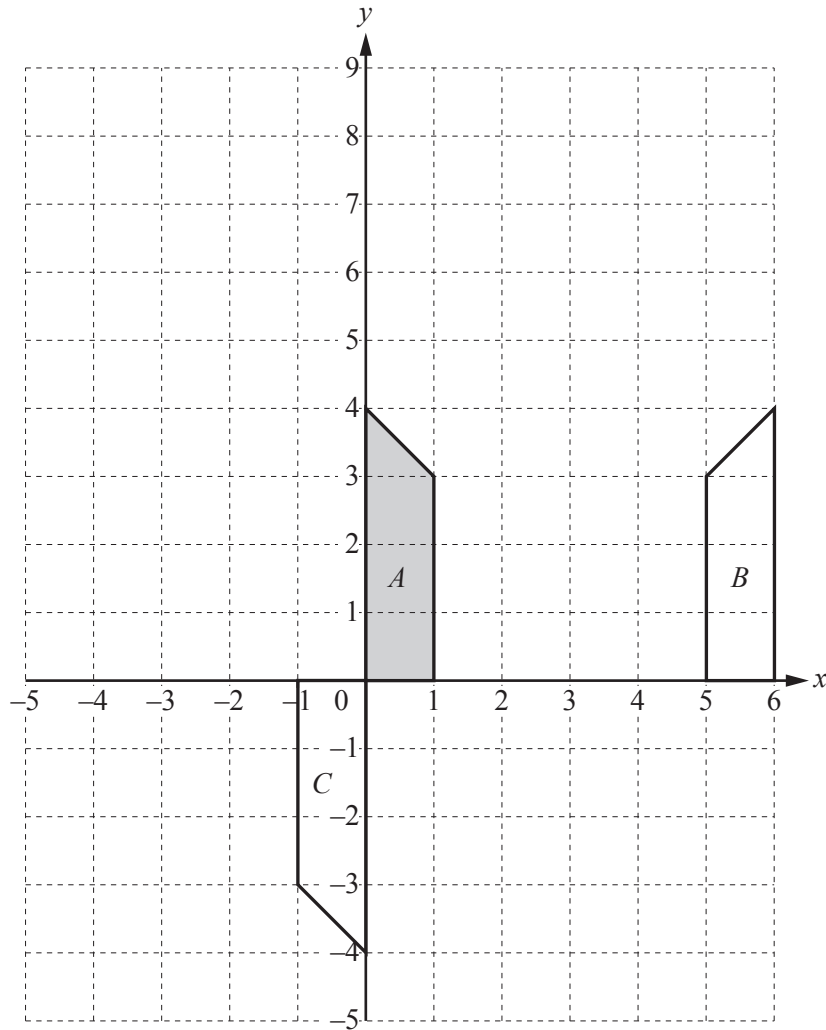
- (b) Ravi stays at the bank for 18 minutes.
He then cycles home at a constant speed for 12 minutes.

Draw the travel graph to show Ravi's journey since he left home.



[3]

Question 21 is printed on the next page.



Three shapes *A*, *B* and *C* are shown on the grid.

(a) Describe fully the **single** transformation that maps shape *A* onto

(i) shape *B*,

Answer(a)(i)

..... [2]

(ii) shape *C*.

Answer(a)(ii)

..... [3]

(b) Enlarge shape *A* by scale factor 2 from the centre (4, 0). [2]

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