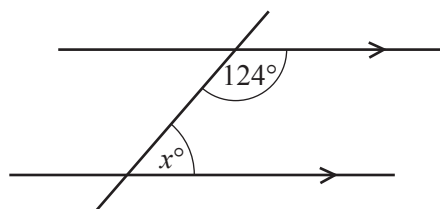


1 What is the value of the digit 7 in 43 782?

Answer

2



NOT TO
SCALE

Find the value of x .

Answer $x =$ [1]

3 Write 0.88 as a fraction in its simplest form.

Answer [2]

4 Ahmed and Babar share 240 g of sweets in the ratio 7 : 3.

Calculate the amount Ahmed receives.

Answer g [2]

5 Factorise completely.

$$9x^2 - 6x$$

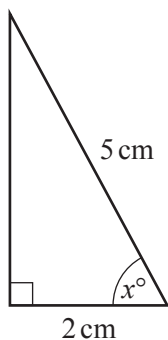
Answer [2]

- 6 The mass of a car is 1400 kg correct to the nearest hundred kilograms.

Complete the statement about the mass, m kilograms, of the car.

Answer $\leq m <$ [2]

7



NOT TO
SCALE

Calculate the value of x .

Answer $x =$ [2]

- 8 (a) Work out.

$$(-6) - (-8)$$

Answer(a) [1]

- (b) Write in the missing number.

$$-3 \times \text{.....} = 18$$

[1]

- 9 Use your calculator to work out

(a) $\sqrt{4.2^2 + 5.8^2}$,

Answer(a) [1]

(b) $\sqrt[3]{42.875}$.

Answer(b) [1]

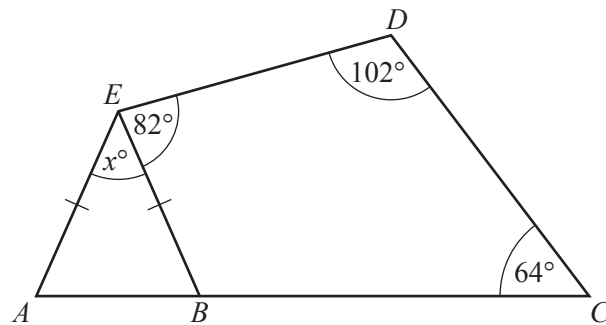
- 10 (a) Write 270 000 in standard form.

Answer(a)

- (b) Work out the mean of 6.4×10^7 and 8.5×10^8 .
Write your answer in standard form.

Answer(b) [2]

11



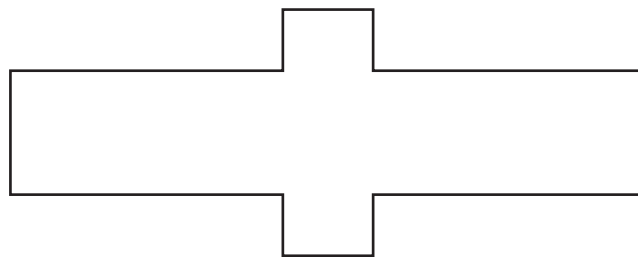
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The diagram shows an isosceles triangle ABE and a quadrilateral $BCDE$.
 ABC is a straight line.

Calculate the value of x .

Answer $x =$ [3]

12



- (a) On the shape, draw the lines of symmetry. [2]

- (b) Write down the order of rotational symmetry of the shape.

Answer(b) [1]

- 13 James buys a drink for 2 euros (€).

Work out the cost of the drink in pounds (£) when £1 = €1.252 .
Give your answer correct to 2 decimal places.

Answer £ [3]

- 14 **Without using a calculator**, work out $1\frac{7}{8} \div \frac{5}{9}$.

Show all your working and give your answer as a fraction in its lowest terms.

Answer [3]

- 15 Solve the equation.

$$3(x + 4) = 2(4x - 1)$$

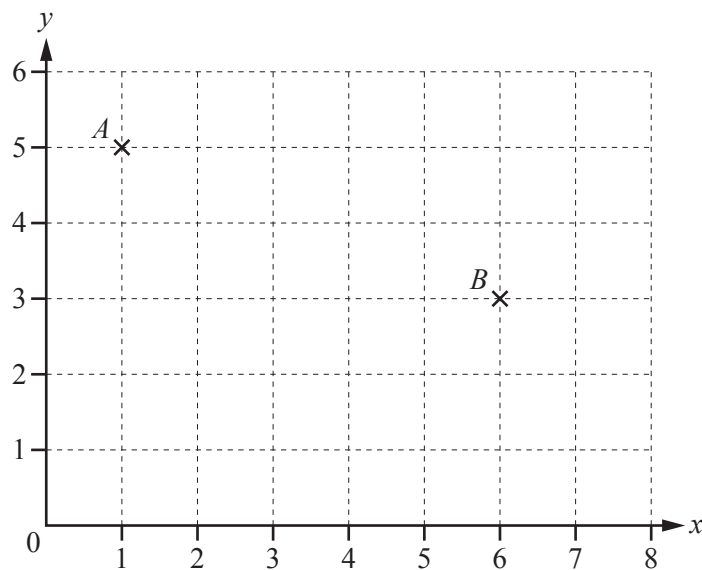
Answer $x =$ [3]

- 16 In a sale, the cost of a coat is reduced from \$85 to \$67.50 .

Calculate the percentage reduction in the cost of the coat.

Answer % [3]

17



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

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

- (b) Write down the vector \vec{AB} .

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

- (c) Work out.

$$\begin{pmatrix} 4 \\ -6 \end{pmatrix} + \begin{pmatrix} 2 \\ 5 \end{pmatrix}$$

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

- (d) Work out.

$$6 \begin{pmatrix} -3 \\ 7 \end{pmatrix}$$

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

18 (a) Calculate $\frac{6.4 + 7.3}{19.56 - 3.51}$.

Give your answer correct to 2 significant figures.

Answer(a) [2]

(b) Write the following numbers in order of size, smallest first.

57% 0.5077 0.507 $\frac{5}{9}$

Answer(b) < < < [2]

19 (a) Write down the prime number between 62 and 70.

Answer(a) [1]

(b) Write 54 as the product of its prime factors.

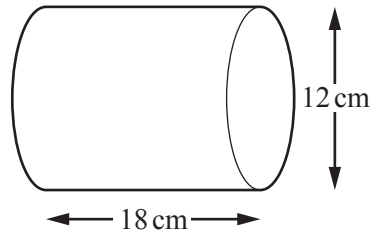
Answer(b) [2]

(c) Find the highest common factor (HCF) of 54 and 90.

Answer(c) [2]

Question 20 is printed on the next page.

- 20 (a) A cylinder has diameter 12 cm and length 18 cm.

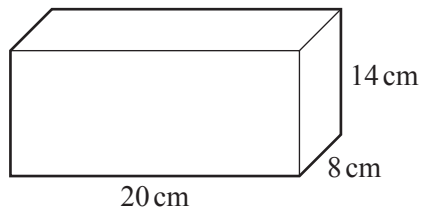


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Calculate the volume of the cylinder.

Answer(a) cm³ [2]

(b)



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- (i) Calculate the surface area of this cuboid.

Answer(b)(i) cm² [3]

- (ii) Write your answer to **part (b)(i)** in square millimetres.

Answer(b)(ii) mm² [1]

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