



- 1 Write 0.071 64 correct to 2 significant figures.

..... [1]

- 2 The probability that Stephanie wins her next tennis match is 0.85 .  
Find the probability that Stephanie does not win her next tennis match.

..... [1]

- 3 Calculate  $\sqrt{120} + 3.8^2 - 25$ .

..... [1]

- 4 Work out 85 cents as a percentage of \$2.03 .

..... % [1]

- 5 Change  $6200 \text{ cm}^2$  into  $\text{m}^2$ .

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

- 6 Factorise.  
 $14x - 21y$

..... [1]

7 The daily temperature, in °C, at 3 pm in a town is shown below.

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|--------|---------|-----------|----------|--------|----------|--------|
| 3      | -2      | 1         | 2        | -4     | 3        | 5      |

(a) Which day had the coldest temperature?

..... [1]

(b) Work out the difference in the temperatures on Friday and Saturday.

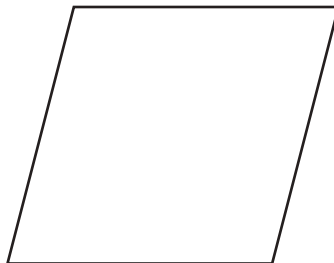
.....°C [1]

8 Write these numbers in order of size, smallest first.

$\frac{7}{22}$       0.3      33%       $\frac{1}{3}$

..... < ..... < ..... < ..... [2]  
*smallest*

9



The shape above is a rhombus.

Draw all the lines of symmetry on the shape.

[2]

10 (a) Write 0.03 as a percentage.

..... % [1]

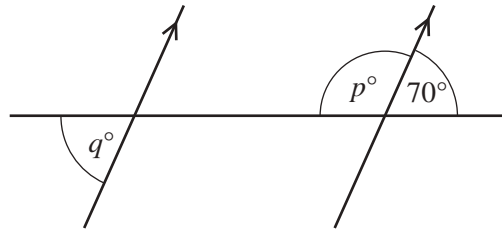
(b) Write 37% as a fraction.

..... [1]

11 Find the value of  $5a - 3b$  when  $a = 7$  and  $b = -2$ .

..... [2]

12



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The diagram shows a straight line intersecting two parallel lines.

Find the value of  $p$  and the value of  $q$ .

$p =$  .....

$q =$  ..... [2]

13 Solve.

$$2 - x = 5x + 1$$

$x =$  ..... [2]

14 (a) Write 0.0605 in standard form.

..... [1]

(b) Calculate  $0.1 \times 5.1 \times 10^4$ , giving your answer in standard form.

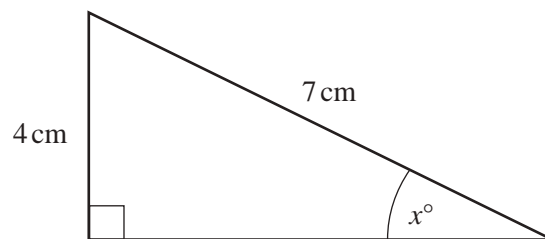
..... [1]

15 The mass,  $m$  kilograms, of a cat is 2.7 kg, correct to 1 decimal place.

Complete the statement about the value of  $m$ .

.....  $\leq m <$  ..... [2]

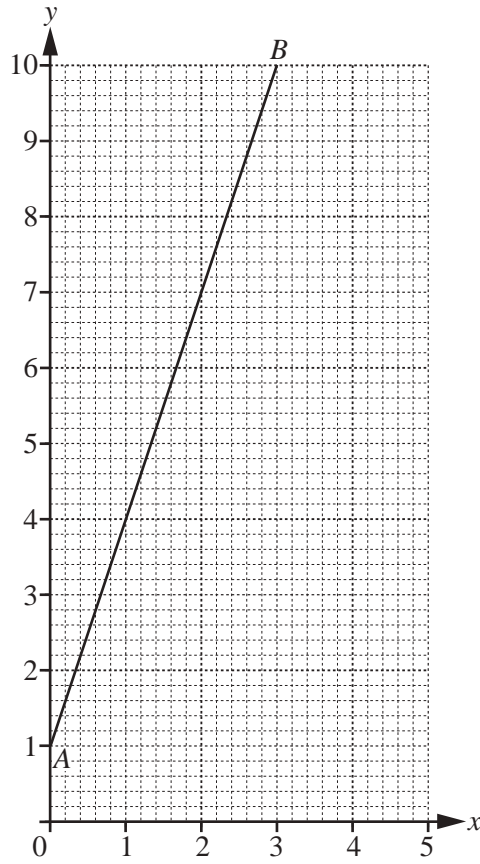
16



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Calculate the value of  $x$ .

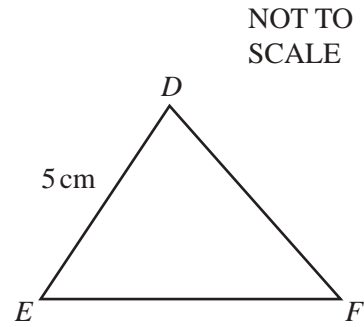
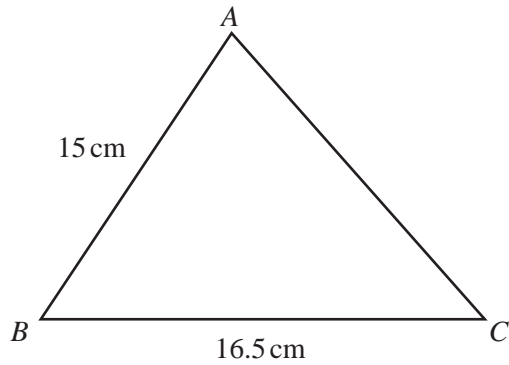
$x =$  ..... [2]



Find the gradient of the line  $AB$ .

..... [2]

18



Triangles  $ABC$  and  $DEF$  are similar.

Find the length of  $EF$ .

$$EF = \dots\dots\dots \text{ cm [2]}$$

19 The exchange rate between dollars and euros(€) is €1= \$1.158 .

(a) Felicity changes €4900 into dollars.

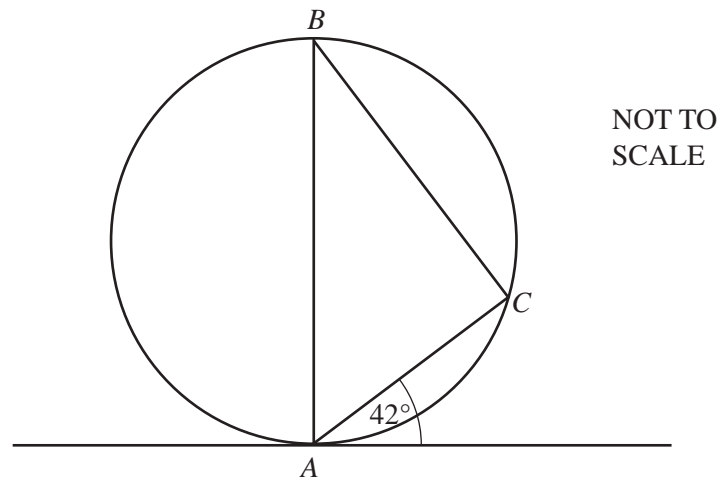
Work out how many dollars she receives.

$$\text{\$ } \dots\dots\dots [1]$$

(b) Ricky changes \$2895 into euros.

Work out how many euros he receives.

$$\text{€} \dots\dots\dots [2]$$



$A$ ,  $B$  and  $C$  are points on the circumference of a circle with diameter  $AB$ .  
A tangent is drawn at  $A$ .

Find

(a) angle  $BAC$ ,

Angle  $BAC = \dots\dots\dots [1]$

(b) angle  $ABC$ .

Angle  $ABC = \dots\dots\dots [2]$



- 21 (a) **Without using a calculator**, work out  $\frac{5}{6} - \frac{1}{2}$ .

Show all the steps of your working and give your answer as a fraction in its simplest form.

..... [2]

- (b) Show that  $4\frac{1}{6} \times 1\frac{4}{5} = 7\frac{1}{2}$ .

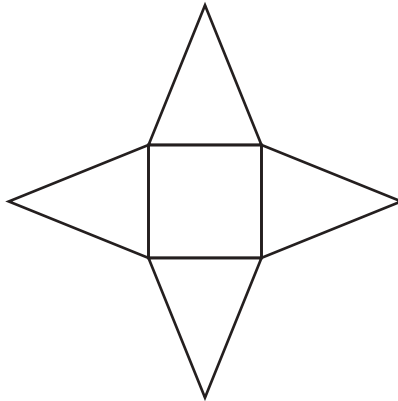
**Do not use a calculator** and show all the steps of your working.

[2]

22 (a) Each diagram shows the net of a solid.

Write down the mathematical name of each solid.

(i)



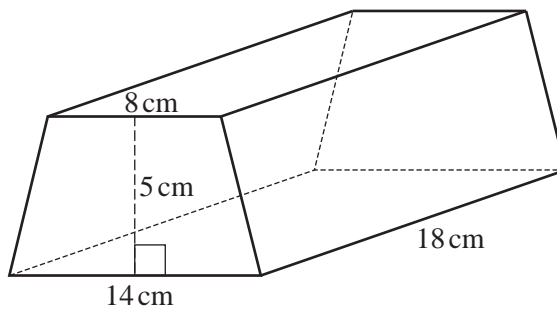
..... [1]

(ii)



..... [1]

(b) The cross section of this prism is a trapezium.



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Calculate the volume of the prism.

..... cm<sup>3</sup> [3]

23 Pablo has \$16400 to invest in one of these savings plans.

Plan A pays compound interest at a rate of 4% per year.

Plan B pays simple interest at a rate of 4% per year.

Pablo invests the \$16400 for 3 years.

Calculate how much more he will receive from Plan A than from Plan B.  
Give your answer correct to 2 decimal places.

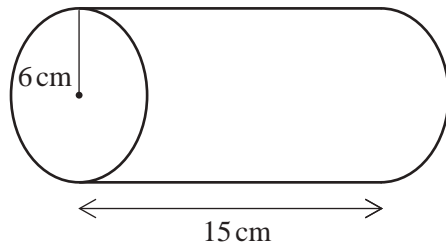
\$ ..... [5]

**Question 24 is printed on the next page.**

24 (a) Work out the area of a circle with radius 6 cm.

..... cm<sup>2</sup> [2]

(b) A solid cylinder has length 15 cm and radius 6 cm.



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Calculate the total surface area of the cylinder.

..... cm<sup>2</sup> [4]

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