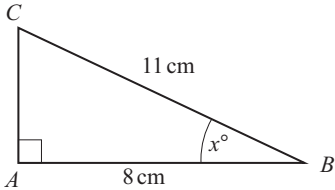


10



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The diagram shows a right-angled triangle ABC .

(a) Work out the exact length of AC .

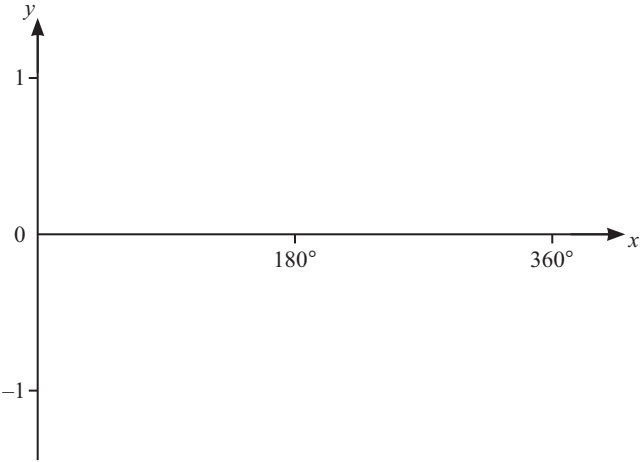
..... cm [3]

(b) $\cos x = k$

Write down the value of k .

$k =$ [1]

17 (a) Sketch the graph of $y = \cos x$ for $0^\circ \leq x \leq 360^\circ$.



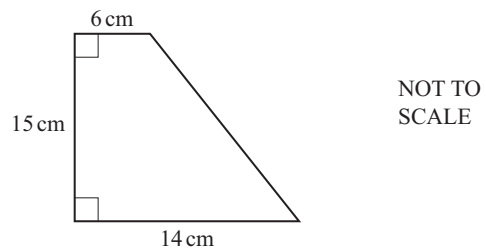
[2]

(b) $\cos x^\circ = \frac{1}{\sqrt{2}}$ and x is a **reflex** angle.

Find the value of x .

$x =$ [2]

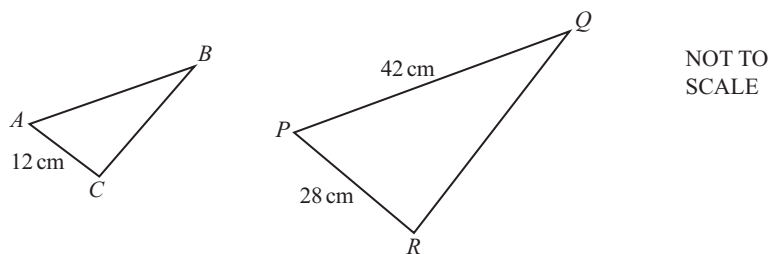
23



Calculate the perimeter of this trapezium.

..... cm [4]

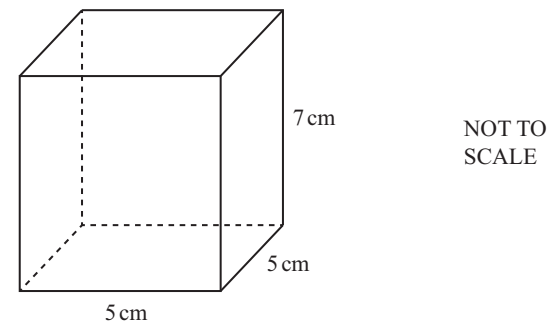
24 Triangles ABC and PQR are mathematically similar.



Calculate AB .

$AB =$ cm [2]

19

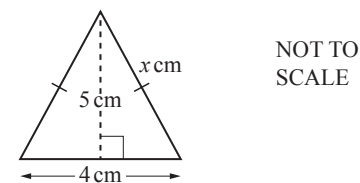


The diagram shows a box in the shape of a cuboid.
Mala has a straight rod of length 10 cm.

Show that this rod does **not** fit completely inside the box.

[3]

16

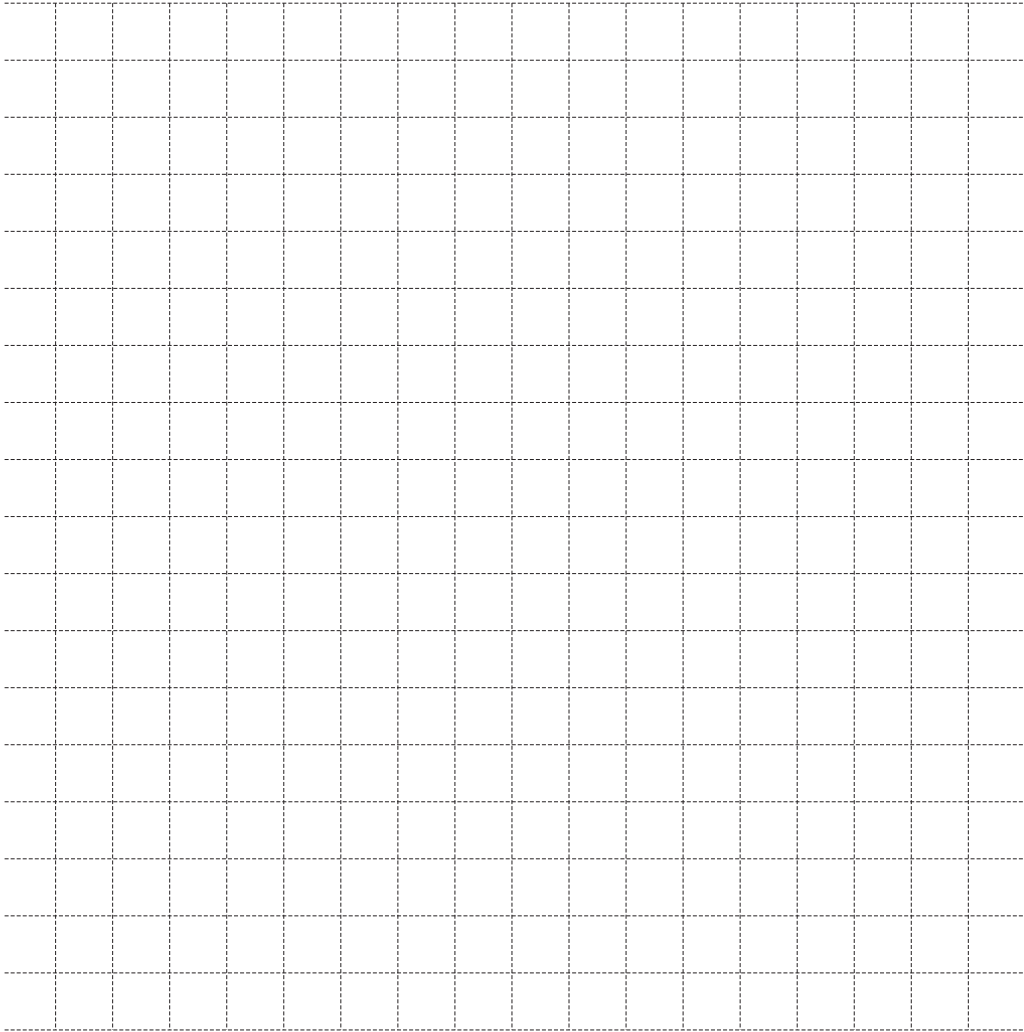


The diagram shows an isosceles triangle.

(a) Calculate the value of x .

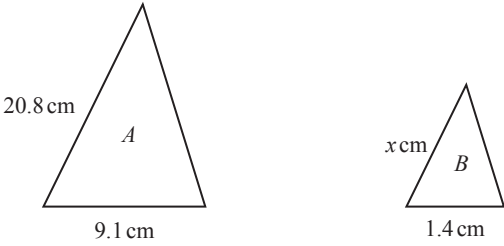
$x =$ [2]

- (b) The triangle is one face of a square-based pyramid.
- Each triangular face of the pyramid is the same.
- On the 1 cm^2 grid, draw a net of this pyramid.



[3]

29 (a)



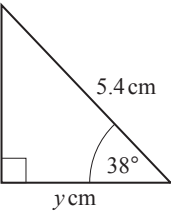
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The diagram shows two similar triangles, A and B .

Calculate the value of x .

$x =$ [2]

(b)

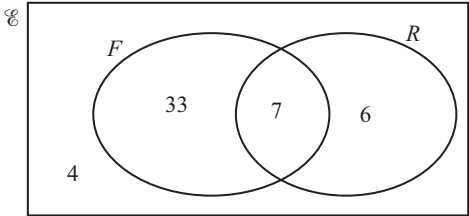


The diagram shows a right-angled triangle.

Calculate the value of y .

$y =$ [2]

12 Some students are asked if they like football (F) or rugby (R).
The Venn diagram shows the results.

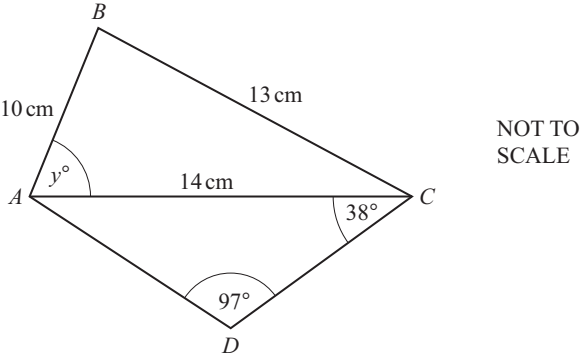


- (a) Find the number of students who do not like rugby.

..... [1]
- (b) Use set notation to describe the region containing students who like rugby but not football.

..... [1]

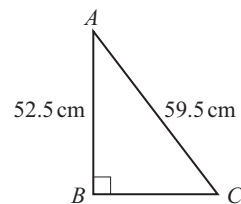
29



- (a) Calculate the value of y .

$y =$ [3]
- (b) Calculate BD .

21 The diagram shows a right-angled triangle ABC .



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Calculate BC .

$BC =$ cm [3]

22 (a) Anil invests \$2000 and Baz invests \$7500.

Write the ratio money invested by Anil : money invested by Baz in its simplest form.

..... : [1]

(b) Kamil and Lavik share some money in the ratio Kamil : Lavik = 5 : 9.
Lavik receives \$72 more than Kamil.

Calculate the total amount of money they share.

\$ [2]

(c) Vanisha invests \$4000 for 5 years at a rate of 3.5% per year compound interest.

Calculate the total interest earned during the 5 years.

\$ [3]