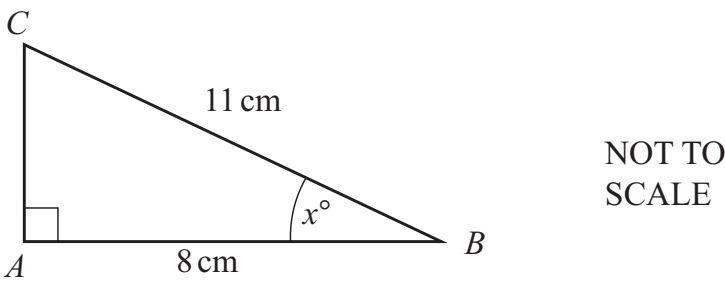


10



The diagram shows a right-angled triangle ABC .

(a) Work out the exact length of AC .

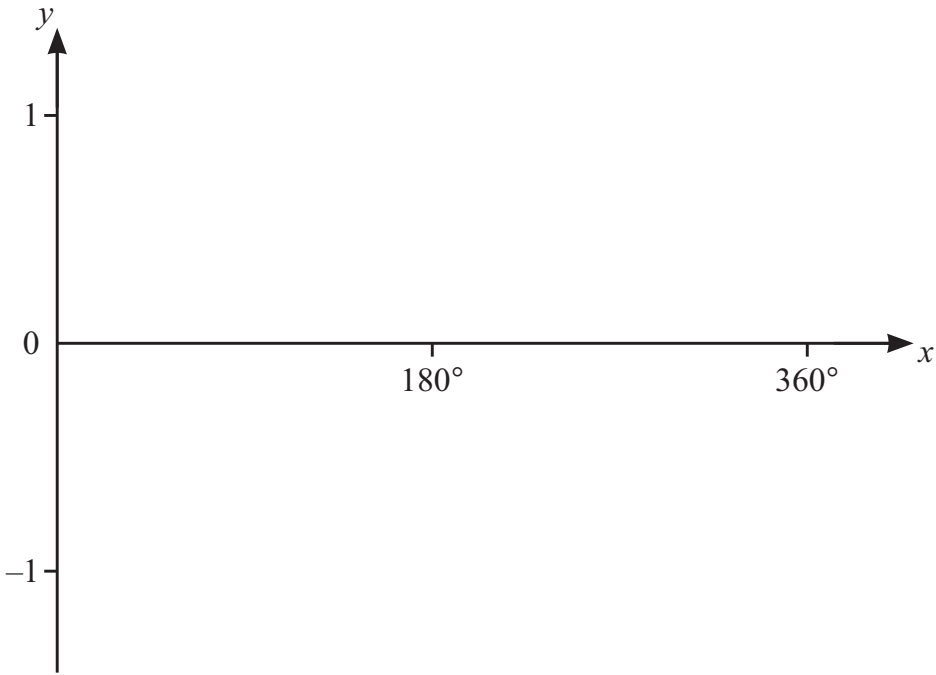
..... cm [3]

(b) $\cos x = k$

Write down the value of k .

$k =$ [1]

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



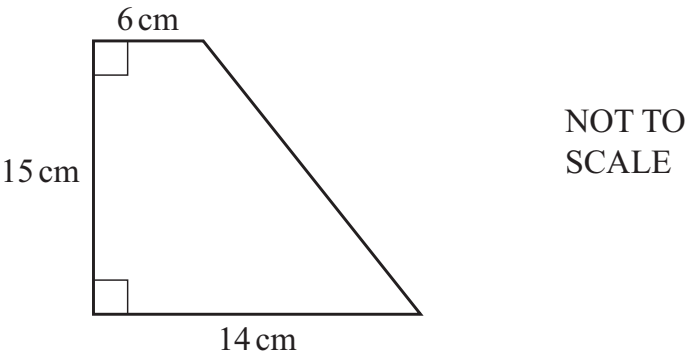
[2]

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

Find the value of x .

$x =$ [2]

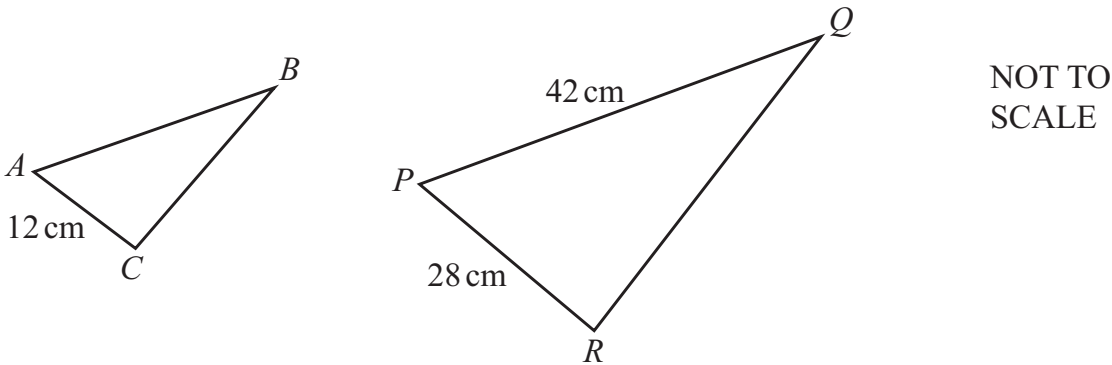
23



Calculate the perimeter of this trapezium.

..... cm [4]

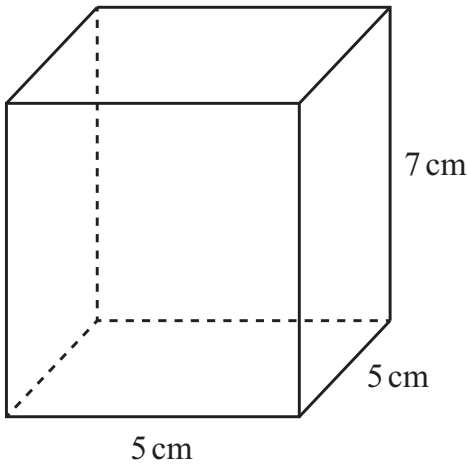
24 Triangles ABC and PQR are mathematically similar.



Calculate AB .

$AB =$ cm [2]

19



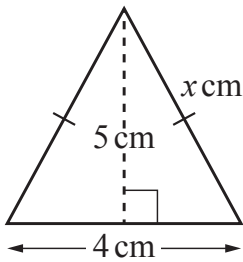
NOT TO
SCALE

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



NOT TO
SCALE

The diagram shows an isosceles triangle.

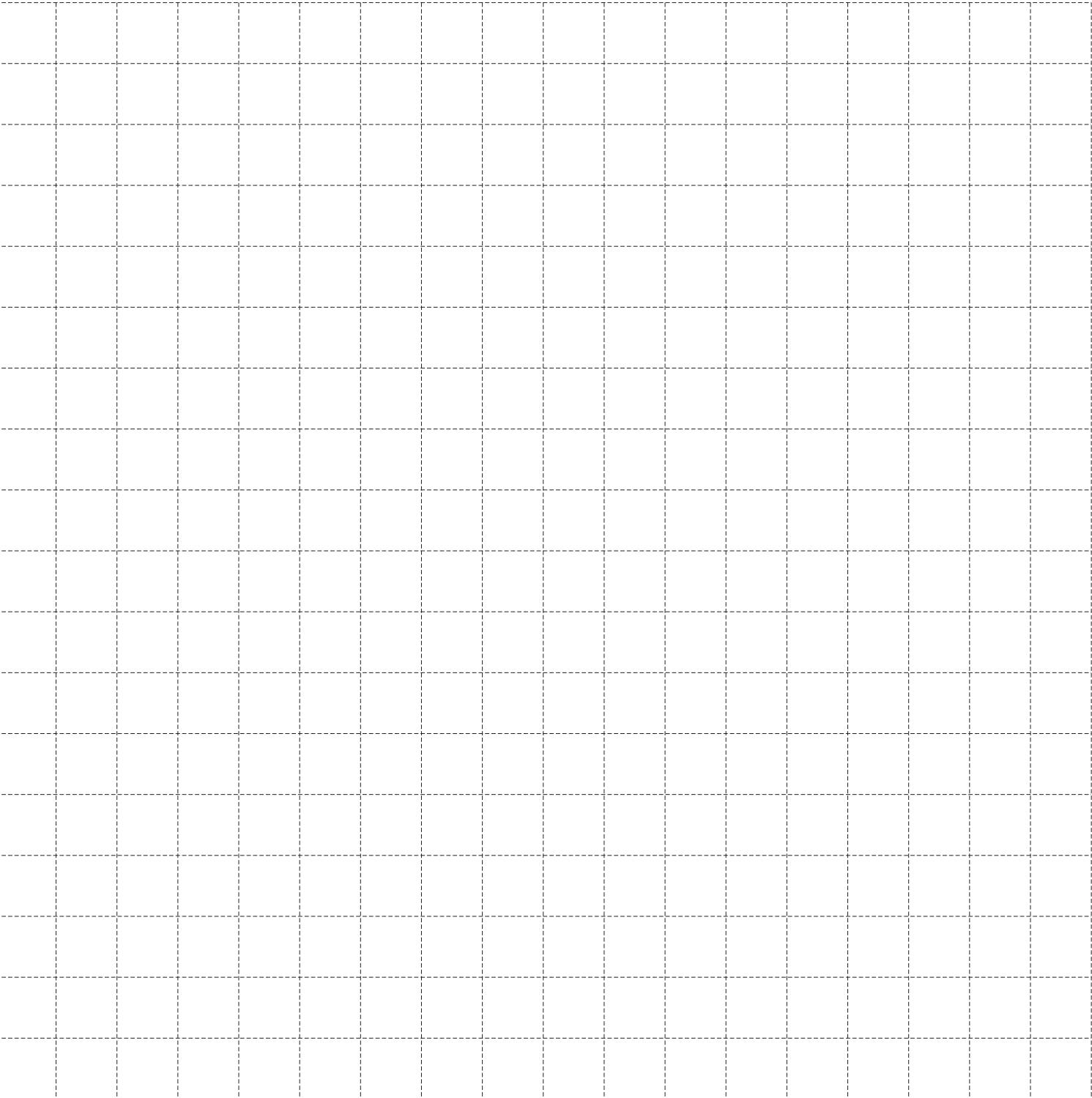
(a) Calculate the value of x .

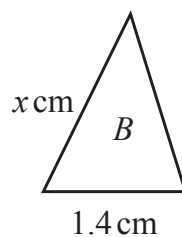
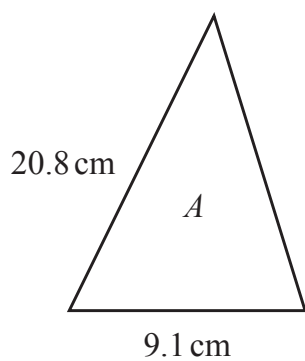
$x =$ [2]

(b) The triangle is one face of a square-based pyramid.

Each triangular face of the pyramid is the same.

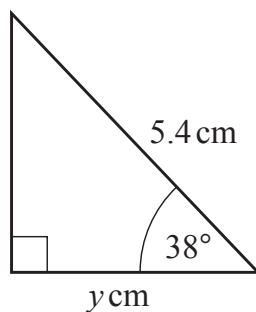
On the 1 cm² grid, draw a net of this pyramid.



29 (a)NOT TO
SCALE

The diagram shows two similar triangles, A and B .

Calculate the value of x .

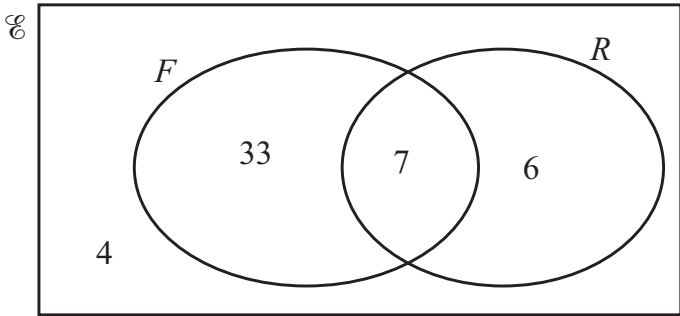
 $x = \dots\dots\dots$ [2]**(b)**

The diagram shows a right-angled triangle.

Calculate the value of y .

 $y = \dots\dots\dots$ [2]

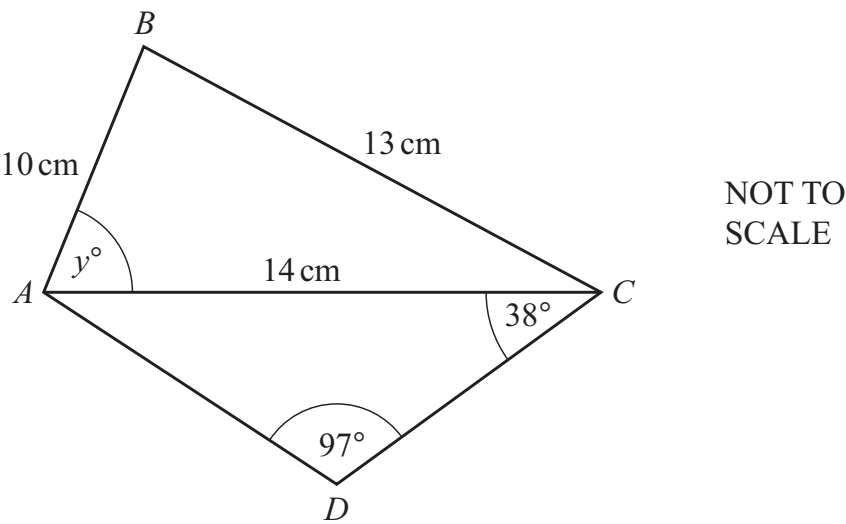
12 Some students are asked if they like football (F) or rugby (R).
The Venn diagram shows the results.



- (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]

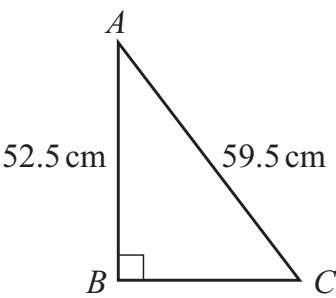


(a) Calculate the value of y .

$y = \dots\dots\dots$ [3]

(b) Calculate BD .

21 The diagram shows a right-angled triangle ABC .



NOT TO
SCALE

Calculate BC .

$BC = \dots\dots\dots$ 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.

$\dots\dots\dots : \dots\dots\dots$ [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.

\$ $\dots\dots\dots$ [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.

\$ $\dots\dots\dots$ [3]