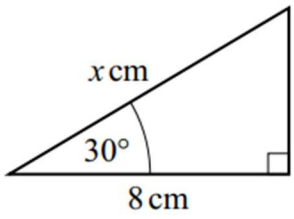
22

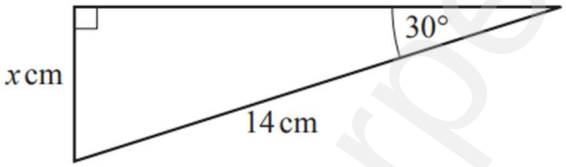


NOT TO SCALE

Find the exact value of x.

$x =$ ..... [4]

6

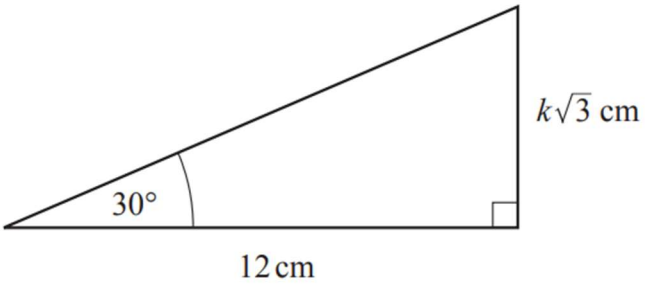


NOT TO SCALE

Work out the value of x.

$x =$ ..... [3]

14

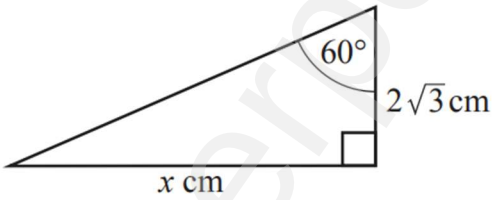


NOT TO SCALE

Find the value of k.

$k =$ ..... [3]

10

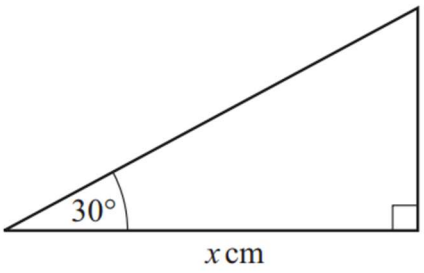


NOT TO SCALE

Find the value of x.

$x =$ ..... [3]

20



NOT TO SCALE

Find the exact value of x.

$x =$ ..... [4]

22 **(a)** Write down the exact value of $\tan 60°$.

..... [1]

(b) Solve $2\sin x - 1 = 0$ for $0° \leqslant x \leqslant 360°$.

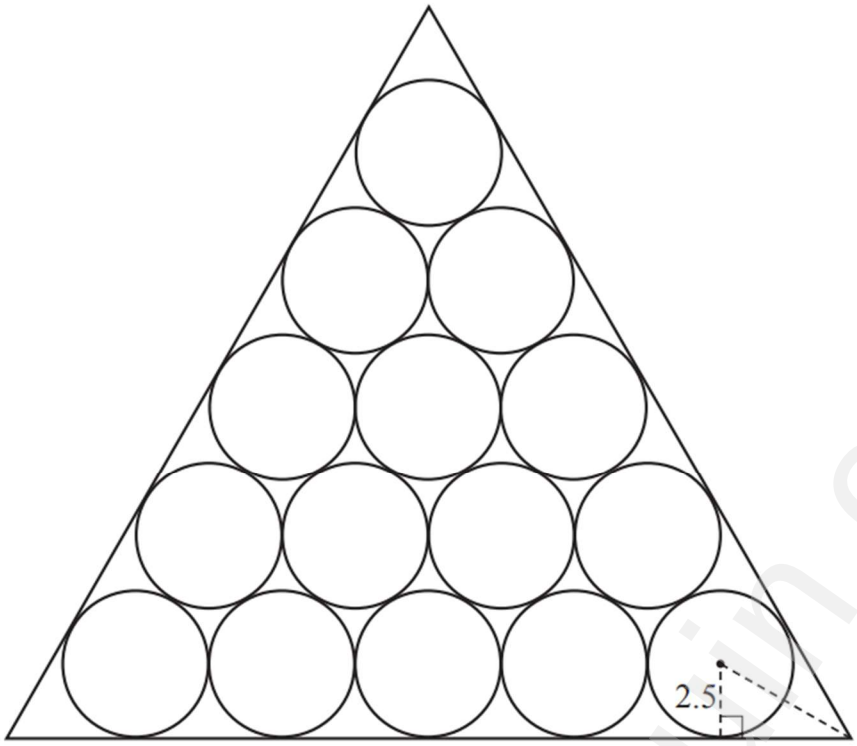
$x =$ ..... or $x =$ ..... [3]

24 $\tan x = \sqrt{3}$ and $0° \leqslant x \leqslant 360°$.

Find all the possible values of x.

..... [2]

14



NOT TO SCALE

The diagram shows 15 circles in an equilateral triangle.
The circles touch each other and the triangle.
The radius of each circle is 2.5 cm.

The length of each side of the triangle is $\left(a+b\sqrt{3}\right)$ cm where a and b are integers.

Find the value of a and the value of b.

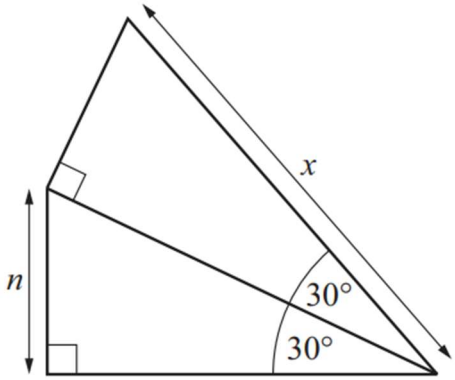
$a =$ .....

$b =$ ..... [5]

23 **(a)** Write down the value of cos 90°.

..... [1]

(b)



NOT TO SCALE

The diagram shows two different right-angled triangles joined by a common side.

Find x in terms of n.

$x =$ ..... [5]