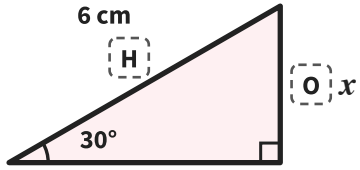
Exact trig values

1

Find x. Do not use a calculator.



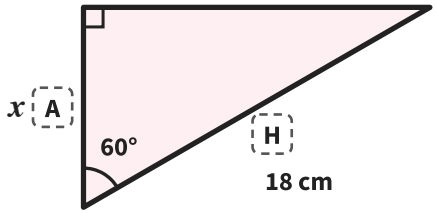
$x =$ 6 × sin 30°

$= 6 \times \frac{\square}{\square}$

$x =$ _____

2

Find x. Do not use a calculator.



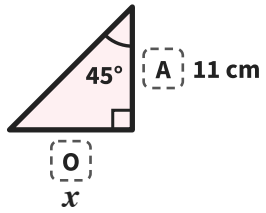
$x =$ 18 × cos 60°

$= \square \times \frac{\square}{\square}$

$x =$ _____

3

Find x. Do not use a calculator.



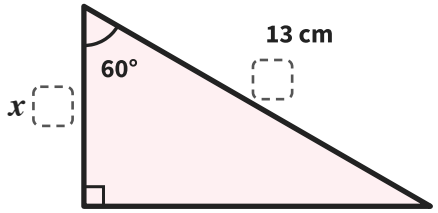
$x = \square \times \square$

$= \square \times \frac{\square}{\square}$

$x =$ _____

4

Label A and H, then find x. Do not use a calculator.



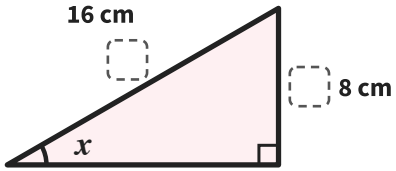
$x = \square \times \square$

$= \square \times \frac{\square}{\square}$

$x =$ _____

5

Find the angle x. Do not use a calculator.



_____

_____

$x =$ _____

6

Write down the value of each.

sin 0° = _____

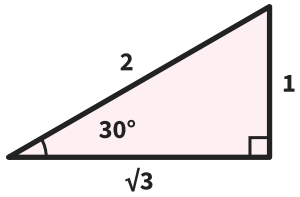
cos 0° = _____

sin 90° = _____

cos 90° = _____

7

Kai says $\sin 30° = \frac{\sqrt{3}}{2}$. Use the triangle to explain his mistake.



_____

_____

sin 30° = _____

8

A straight hiking path climbs at 30° to the horizontal. Mia walks 800 m along it. How much height does she gain? Do not use a calculator.

_____

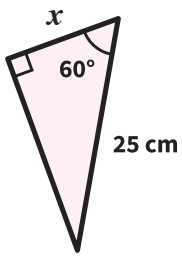
_____

Answer _____

Exact trig values *further practice*

9

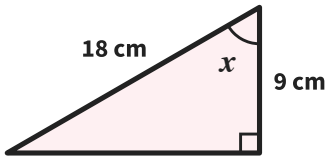
Find x. Do not use a calculator.



$x =$ _____

10

Find the angle x. Do not use a calculator.



$x =$ _____

11

x is from 0° to 90°. Find x when

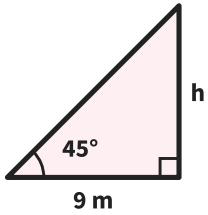
(a) $\sin x = \frac{\sqrt{3}}{2}$

(b) $\cos x = 1$

Answer _____

12

The sun is 45° above the horizon.
A flagpole's shadow is 9 m long.
How tall is the flagpole? Do not use a calculator.



Answer _____

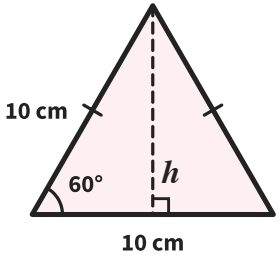
13

A ski lift chair travels 400 m along its straight cable and rises 200 m.
Find the angle between the cable and the horizontal. Do not use a calculator.

Answer _____

14

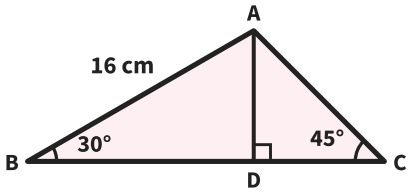
An equilateral triangle has sides of 10 cm. Find its height h.
Give your answer as an exact value.



$h =$ _____

15

Find AD, then find DC. Do not use a calculator.



DC = _____

16

Ana says that as an angle goes up from 0° to 90°, its cos gets bigger.
Use exact values to show that Ana is wrong.

Answer _____