

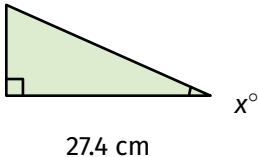
Push Tasks



Use SOH CAH TOA to find the missing angle, labelled x . Give each answer to 2 decimal places.

1.

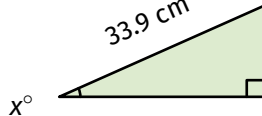
13.6 cm



2.

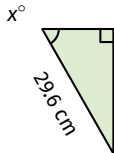
33.9 cm

10.9 cm



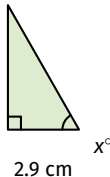
3.

12.4 cm



4.

8.6 cm

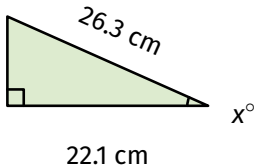


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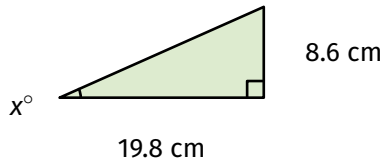


Use SOH CAH TOA to find the missing angle, labelled x . Give each answer to 2 decimal places.

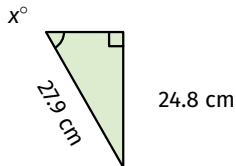
5.



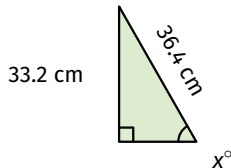
6.



7.



8.

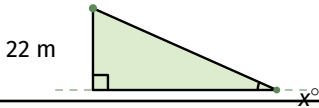


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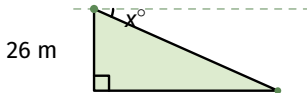


These are angle-of-elevation and angle-of-depression scenes. Give each answer to 2 decimal places.

- 9.** A drone's angle of elevation, to 2 d.p.



- 10.** The angle of depression to a boat, to 2 d.p.



- 11.** A ladder 9.4 m long leans at 63° .
(a) Find the height reached, to 2 d.p.
(b) From a point 3.1 m from the wall, find the angle of elevation to the ladder's top, to 2 d.p.

- 12.** Without using a calculator, find the exact size of angle y if $\tan(y) = 1$.

Push Tasks



Give each answer to 2 decimal places unless the angle is exact.

13. Without using a calculator, find the exact size of angle y if

$$\sin(y) = \frac{\sqrt{3}}{2}.$$

15. A student enters $\sin^{-1}(1.5)$ into a calculator and gets an error. Explain, referring to the possible values of $\sin(A)$ for an angle A , why no such angle exists.

14. Without using a calculator, find the exact size of angle y if

$$\cos(y) = \frac{\sqrt{3}}{2}.$$

16. A tree is 15 m tall. (a) Find the angle of elevation to its top from 30 m away. (b) A bird sits 12 m up the same tree. Find the angle of elevation to the bird from 18 m away.