Fill In The Blanks...

Finding Angles Using Trigonometry

Labelled diagram	Choose ratio	Substitute into formula	Rearrange formula	Answer (1dp)
H 12 cm, O, A 7 cm, x	cos	$\cos x = \dfrac{7}{12}$	$x = \cos^{-1}\left(\dfrac{7}{12}\right)$	54.3°
H 8 cm, 5 cm, O, x, A	sin	$\sin x = \dfrac{5}{8}$	$x = \sin^{-1}\left(\dfrac{5}{8}\right)$	38.7°
O, 23 mm, A, x, H 40 mm	cos	$\cos x = \dfrac{23}{40}$	$x = \cos^{-1}\left(\dfrac{23}{40}\right)$	54.9°
H, x, O 7.2 cm, 3.5 cm, A	tan	$\tan x = \dfrac{7.2}{3.5}$	$x = \tan^{-1}\left(\dfrac{7.2}{3.5}\right)$	64.1°
A, x, 2 cm, 13 cm, O, H	sin	$\sin x = \dfrac{2}{13}$	$x = \sin^{-1}\left(\dfrac{2}{13}\right)$	8.8°
H, x, 2.7 m, 2.2 m, A, O	tan	$\tan x = \dfrac{2.2}{2.7}$	$x = \tan^{-1}\left(\dfrac{2.2}{2.7}\right)$	39.2°
2 cm, O, A, x, 3 cm, H	cos	$\cos x = \dfrac{2}{3}$	$x = \cos^{-1}\left(\dfrac{2}{3}\right)$	48.2°
11 cm, 15 cm, O, A, x, H	tan	$\tan x = \dfrac{15}{11}$	$x = \tan^{-1}\left(\dfrac{15}{11}\right)$	53.7°