

# Fill in the Blanks Finding Lengths Using Trigonometry

Labelled diagram	Choose ratio	Substitute into formula	Rearrange formula	Answer (1dp)
<p>A right-angled triangle with a hypotenuse of 11 cm and an angle of 38°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>	sin	$\sin 38 = \frac{x}{11}$	$x = 11 \times \sin 38$	
<p>A right-angled triangle with an adjacent side of 6 cm and an angle of 51°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>	tan			
<p>A right-angled triangle with a hypotenuse of 37 mm and an angle of 63°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>				
<p>A right-angled triangle with an adjacent side of 8 cm and an angle of 28°. The hypotenuse is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the adjacent side is labeled O.</p>	cos	$\cos 28 = \frac{8}{x}$	$x = \frac{8}{\cos 28}$	
<p>A right-angled triangle with a hypotenuse of 2.5 m and an angle of 71°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>	tan			
<p>A right-angled triangle with a hypotenuse of 13 cm and an angle of 49°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>				
<p>A right-angled triangle with a hypotenuse of 5.7 cm and an angle of 35°. The side opposite to the angle is labeled x. The hypotenuse is labeled H, the angle is labeled A, and the opposite side is labeled O.</p>				
		$\tan 68 = \frac{7}{x}$		