Name

Trigonometry - Calculating Angles from Ratios

1 Calculate the angle in degrees, given the trigonometric ratio

$$\sin(\alpha) = 0.616$$

A	B	C	D	E	F
$\alpha = 23^\circ$	$\alpha = 33^\circ$	$\alpha = 28^\circ$	$\alpha = 48^\circ$	$\alpha = 18^\circ$	$\alpha = 38^\circ$

2 Calculate the angle in degrees, given the trigonometric ratio

$$\tan(\alpha) = 1.28$$

A	B	C	D	E	F
$\alpha = 42^\circ$	$\alpha = 57^\circ$	$\alpha = 37^\circ$	$\alpha = 52^\circ$	$\alpha = 72^\circ$	$\alpha = 67^\circ$

3 Calculate the angle in degrees, given the trigonometric ratio

$$\tan(\alpha) = 1.6$$

A	B	C	D	E	F
$\alpha = 63^\circ$	$\alpha = 78^\circ$	$\alpha = 58^\circ$	$\alpha = 43^\circ$	$\alpha = 48^\circ$	$\alpha = 38^\circ$

4 Calculate the angle in degrees, given the trigonometric ratio

$$\cos(\alpha) = 0.602$$

A	B	C	D	E	F
$\alpha = 43^\circ$	$\alpha = 48^\circ$	$\alpha = 53^\circ$	$\alpha = 63^\circ$	$\alpha = 68^\circ$	$\alpha = 73^\circ$

5 Calculate the angle in degrees, given the trigonometric ratio

$$\tan(\alpha) = 3.078$$

A	B	C	D	E	F
$\alpha = 92^\circ$	$\alpha = 77^\circ$	$\alpha = 87^\circ$	$\alpha = 52^\circ$	$\alpha = 62^\circ$	$\alpha = 72^\circ$

6 Calculate the angle in degrees, given the trigonometric ratio

$$\cos(\alpha) = 0.707$$

A	B	C	D	E	F
$\alpha = 65^\circ$	$\alpha = 45^\circ$	$\alpha = 60^\circ$	$\alpha = 50^\circ$	$\alpha = 35^\circ$	$\alpha = 30^\circ$

7 Calculate the angle in degrees, given the trigonometric ratio

$$\tan(\alpha) = 1.235$$

A	B	C	D	E	F
$\alpha = 51^\circ$	$\alpha = 71^\circ$	$\alpha = 36^\circ$	$\alpha = 61^\circ$	$\alpha = 56^\circ$	$\alpha = 31^\circ$

8 Calculate the angle in degrees, given the trigonometric ratio

$$\cos(\alpha) = 0.358$$

A	B	C	D	E	F
$\alpha = 59^\circ$	$\alpha = 89^\circ$	$\alpha = 79^\circ$	$\alpha = 54^\circ$	$\alpha = 69^\circ$	$\alpha = 74^\circ$