



Trigonometry - Calculating Angles from Ratios (Arc Notation)



1 Calculate the angle in degrees, given the trigonometric ratio

$$\text{acos}(0.174) = \alpha$$

A	$\alpha = 100^\circ$	B	$\alpha = 65^\circ$
C	$\alpha = 90^\circ$	D	$\alpha = 95^\circ$
E	$\alpha = 80^\circ$	F	$\alpha = 75^\circ$

2 Calculate the angle in degrees, given the trigonometric ratio

$$\text{atan}(19.081) = \alpha$$

A	$\alpha = 92^\circ$	B	$\alpha = 97^\circ$
C	$\alpha = 107^\circ$	D	$\alpha = 87^\circ$
E	$\alpha = 102^\circ$	F	$\alpha = 82^\circ$

3 Calculate the angle in degrees, given the trigonometric ratio

$$\text{atan}(3.271) = \alpha$$

A	B	C	D	E	F
$\alpha = 53^\circ$	$\alpha = 83^\circ$	$\alpha = 88^\circ$	$\alpha = 78^\circ$	$\alpha = 68^\circ$	$\alpha = 73^\circ$

4 Calculate the angle in degrees, given the trigonometric ratio

$$\text{acos}(0.788) = \alpha$$

A	B	C	D	E	F
$\alpha = 28^\circ$	$\alpha = 38^\circ$	$\alpha = 48^\circ$	$\alpha = 53^\circ$	$\alpha = 33^\circ$	$\alpha = 23^\circ$

5 Calculate the angle in degrees, given the trigonometric ratio

$$\text{asin}(0.469) = \alpha$$

A	B	C	D	E	F
$\alpha = 8^\circ$	$\alpha = 33^\circ$	$\alpha = 13^\circ$	$\alpha = 23^\circ$	$\alpha = 38^\circ$	$\alpha = 28^\circ$

6 Calculate the angle in degrees, given the trigonometric ratio

$$\text{acos}(0.052) = \alpha$$

A	$\alpha = 77^\circ$	B	$\alpha = 87^\circ$
C	$\alpha = 97^\circ$	D	$\alpha = 92^\circ$
E	$\alpha = 107^\circ$	F	$\alpha = 67^\circ$

7 Calculate the angle in degrees, given the trigonometric ratio

$$\text{asin}(0.883) = \alpha$$

A	B	C	D	E	F
$\alpha = 52^\circ$	$\alpha = 42^\circ$	$\alpha = 82^\circ$	$\alpha = 47^\circ$	$\alpha = 72^\circ$	$\alpha = 62^\circ$

8 Calculate the angle in degrees, given the trigonometric ratio

$$\text{asin}(0.857) = \alpha$$

A	B	C	D	E	F
$\alpha = 54^\circ$	$\alpha = 49^\circ$	$\alpha = 74^\circ$	$\alpha = 44^\circ$	$\alpha = 69^\circ$	$\alpha = 59^\circ$