Math worksheet on *'Trigonometry - Calculating Angles from Ratios (-1 Notation) (Level 1)'*. Part of a broader unit on *'Trigonometry Fundamentals - Intro'*

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1 Calculate the angle in degrees, given the trigonometric ratio

$$\tan^{-1}(0.554) = \alpha$$

a	b	c	d	e	f
$\alpha = 34^\circ$	$\alpha = 24^\circ$	$\alpha = 9^\circ$	$\alpha = 29^\circ$	$\alpha = 14^\circ$	$\alpha = 39^\circ$

2 Calculate the angle in degrees, given the trigonometric ratio

$$\tan^{-1}(2.145) = \alpha$$

a	b	c	d	e	f
$\alpha = 60^\circ$	$\alpha = 65^\circ$	$\alpha = 50^\circ$	$\alpha = 55^\circ$	$\alpha = 80^\circ$	$\alpha = 75^\circ$

3 Calculate the angle in degrees, given the trigonometric ratio

$$\cos^{-1}(0.809) = \alpha$$

a	b	c	d	e	f
$\alpha = 56^\circ$	$\alpha = 46^\circ$	$\alpha = 16^\circ$	$\alpha = 36^\circ$	$\alpha = 51^\circ$	$\alpha = 21^\circ$

4 Calculate the angle in degrees, given the trigonometric ratio

$$\tan^{-1}(0.869) = \alpha$$

a	b	c	d	e	f
$\alpha = 26^\circ$	$\alpha = 61^\circ$	$\alpha = 41^\circ$	$\alpha = 51^\circ$	$\alpha = 21^\circ$	$\alpha = 31^\circ$

5 Calculate the angle in degrees, given the trigonometric ratio

$$\tan^{-1}(0.404) = \alpha$$

a	b	c	d	e	f
$\alpha = 17^\circ$	$\alpha = 22^\circ$	$\alpha = 37^\circ$	$\alpha = 12^\circ$	$\alpha = 27^\circ$	$\alpha = 32^\circ$

6 Calculate the angle in degrees, given the trigonometric ratio

$$\tan^{-1}(1.6) = \alpha$$

a	b	c	d	e	f
$\alpha = 58^\circ$	$\alpha = 43^\circ$	$\alpha = 53^\circ$	$\alpha = 63^\circ$	$\alpha = 38^\circ$	$\alpha = 48^\circ$

7 Calculate the angle in degrees, given the trigonometric ratio

$$\sin^{-1}(0.999) = \alpha$$

a	b
$\alpha = 103^\circ$	$\alpha = 98^\circ$
c	**d**
$\alpha = 78^\circ$	$\alpha = 93^\circ$
e	**f**
$\alpha = 88^\circ$	$\alpha = 68^\circ$