



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

Learn online: [app.mobius.academy/math/units/trigonometry\\_fundamentals\\_intro/](http://app.mobius.academy/math/units/trigonometry_fundamentals_intro/)

**2**

How would you calculate the angle, using -1 notation?  $\tan(\alpha) = 5.671$

<b>a</b> $\alpha = \tan(5.671) - 1$	<b>b</b> $\alpha = \tan^{-1}(5.671)$
<b>c</b> $\alpha = \frac{1}{\tan^{-1}(5.671)}$	<b>d</b> $\alpha = \frac{1}{\tan(5.671)}$

**4**

How would you calculate the angle, using -1 notation?  $\tan(\alpha) = 9.514$

<b>a</b> $\alpha = \frac{1}{\tan^{-1}(9.514)}$	<b>b</b> $\alpha = \tan(9.514) - 1$
<b>c</b> $\alpha = \tan^{-1}(9.514)$	<b>d</b> $\alpha = \frac{1}{\tan(9.514)}$

**6**

How would you calculate the angle, using -1 notation?  $\cos(\alpha) = 0.545$

<b>a</b> $\alpha = \cos(0.545) - 1$	<b>b</b> $\alpha = \cos^{-1}(0.545)$
<b>c</b> $\alpha = \frac{1}{\cos^{-1}(0.545)}$	<b>d</b> $\alpha = \frac{1}{\cos(0.545)}$

**1**

How would you calculate the angle, using -1 notation?  $\cos(\alpha) = 0.743$

<b>a</b> $\alpha = \frac{1}{\cos(0.743)}$	<b>b</b> $\alpha = \cos(0.743) - 1$
<b>c</b> $\alpha = \frac{1}{\cos^{-1}(0.743)}$	<b>d</b> $\alpha = \cos^{-1}(0.743)$

**3**

How would you calculate the angle, using -1 notation?  $\tan(\alpha) = 1.111$

<b>a</b> $\alpha = \frac{1}{\tan(1.111)}$	<b>b</b> $\alpha = \frac{1}{\tan^{-1}(1.111)}$
<b>c</b> $\alpha = \tan(1.111) - 1$	<b>d</b> $\alpha = \tan^{-1}(1.111)$

**5**

How would you calculate the angle, using -1 notation?  $\tan(\alpha) = 4.705$

<b>a</b> $\alpha = \tan(4.705) - 1$	<b>b</b> $\alpha = \tan^{-1}(4.705)$
<b>c</b> $\alpha = \frac{1}{\tan^{-1}(4.705)}$	<b>d</b> $\alpha = \frac{1}{\tan(4.705)}$

**7**

How would you calculate the angle, using -1 notation?  $\cos(\alpha) = 0.961$

<b>a</b> $\alpha = \cos(0.961) - 1$	<b>b</b> $\alpha = \cos^{-1}(0.961)$
<b>c</b> $\alpha = \frac{1}{\cos^{-1}(0.961)}$	<b>d</b> $\alpha = \frac{1}{\cos(0.961)}$