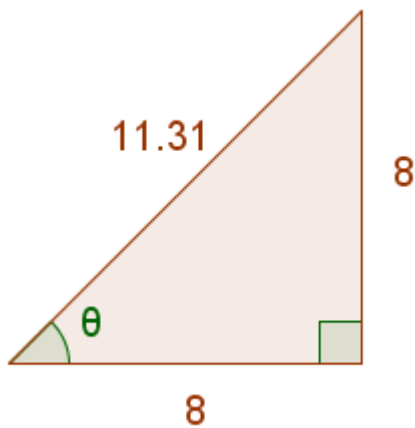# Magic Monk Tutorials

Trigonometry Lesson 2 worksheet

Q1. Find the unknown angle:

$a)$

You can use any trig ratio and get the same answer (provided you use the right formula and substitute the correct numbers in).
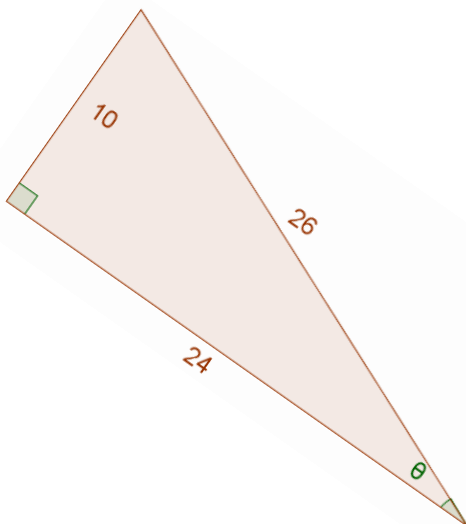
$$tan\theta = \frac{opp}{adj}$$

$$tan\theta = \frac{8}{8}$$

$$\theta = tan^{-1}\left(\frac{8}{8}\right)$$

$$\theta = 45°$$

b)
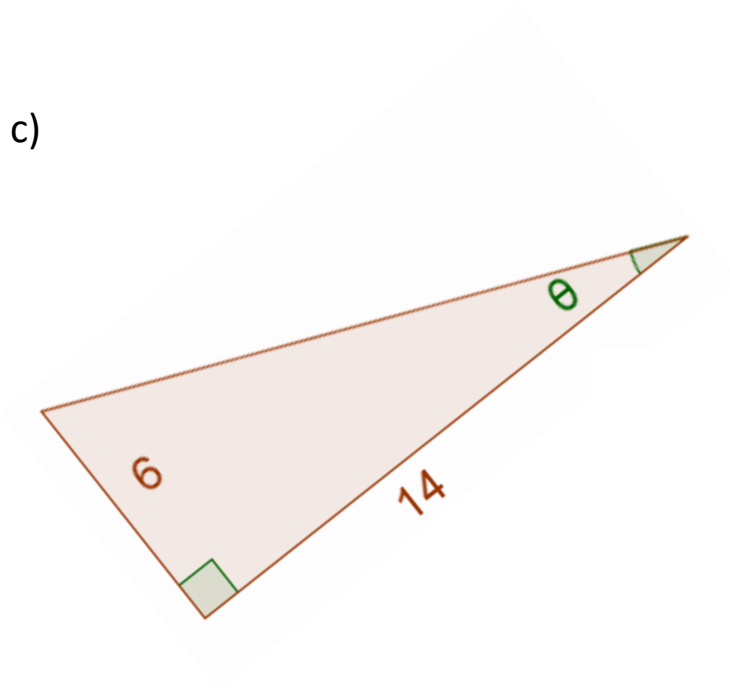
$$sin\theta = \frac{opp}{hyp}$$

$$sin\theta = \frac{10}{26}$$

$$\theta = sin^{-1}\left(\frac{10}{26}\right)$$

$$\theta = 22.62°(2dp)$$
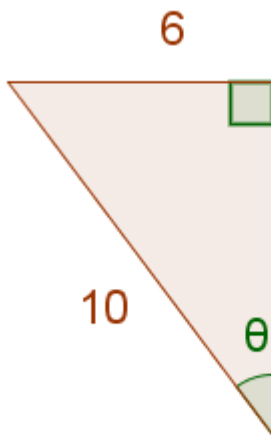
c)

$$tan\theta = \frac{opp}{adj}$$
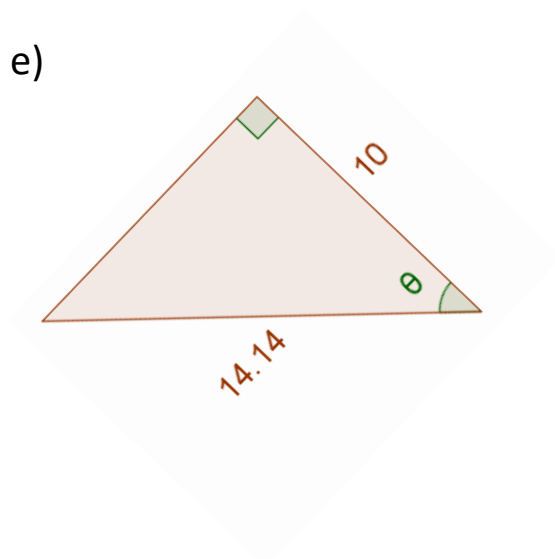
$$tan\theta = \frac{6}{14}$$

$$\theta = \tan^{-1}\left(\frac{6}{14}\right)$$

$$\theta = 23.20 \ (2dp)$$

d)

$$sin\theta = \frac{opp}{hyp}$$

$$sin\theta = \frac{6}{10}$$

$$\theta = \sin^{-1}\left(\frac{6}{10}\right)$$

$$\theta = 36.87°$$

e)

$$\cos\theta = \frac{adj}{hyp}$$

$$cos\theta = \frac{10}{14.14}$$

$$\theta = \cos^{-1}\left(\frac{10}{14.14}\right)$$

$$\theta = 44.99°$$