

Bellwork Alg 2 Friday, April 17, 2020

1. Find both a positive and negative coterminal angle for each. Give answer in the same units as the original angle.

a) $\theta = -1350^\circ$

b) $\theta = \frac{27\pi}{8}$

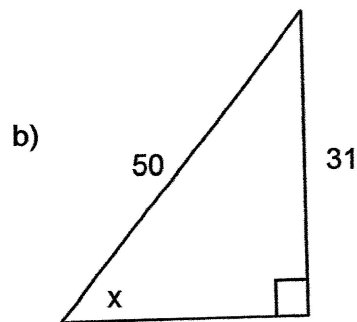
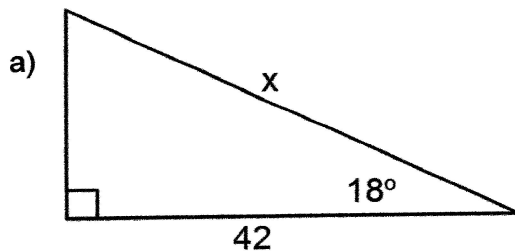
Pos:

Pos:

Neg:

Neg:

2. Find x in each triangle to the nearest hundredth.



1. Find both a positive and negative coterminal angle for each. Give answer in the same units as the original angle.

THERE ARE AN INFINITE NUMBER OF POSSIBLE ANSWERS. SOME COMMON ANSWERS ARE GIVEN.

a) $\theta = -1350^\circ$

Pos:

$$\begin{aligned} -1350^\circ + 1080^\circ &= -270^\circ \\ -270^\circ + 360^\circ &= \boxed{90^\circ} \end{aligned}$$

Neg:

$$\begin{aligned} -1350^\circ + 360^\circ &= \boxed{-990^\circ} \\ \text{OR} \\ -1350^\circ - 360^\circ &= \boxed{-1710^\circ} \end{aligned}$$

b) $\theta = \frac{27\pi}{8} \pm 2\pi \rightarrow 2\pi = \frac{16\pi}{8}$

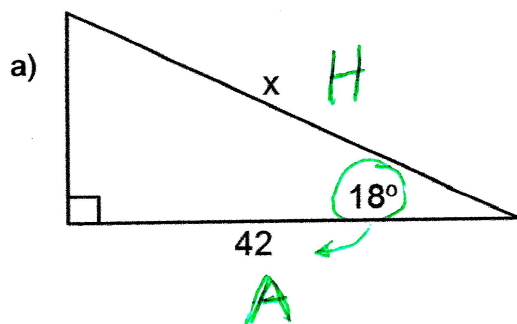
Pos:

$$\begin{aligned} \frac{27\pi}{8} + \frac{16\pi}{8} &= \frac{43\pi}{8} \\ \text{or} \\ \frac{27\pi}{8} - \frac{16\pi}{8} &= \frac{11\pi}{8} \end{aligned}$$

Neg: $\frac{27\pi}{8} - \frac{16\pi}{8} = \frac{11\pi}{8}$

$$\frac{11\pi}{8} - \frac{16\pi}{8} = \frac{-5\pi}{8}$$

2. Find x in each triangle to the nearest hundredth.

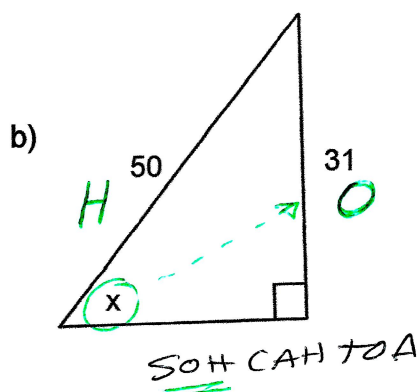


SOHCAHTOA

$$\cos 18^\circ = \frac{42}{x}$$

$$x = \frac{(42)(1)}{\cos 18^\circ} =$$

$$\boxed{x = 44.16}$$



SOHCAHTOA

$$\sin x = \frac{31}{50}$$

$$x = \sin^{-1}\left(\frac{31}{50}\right)$$

$$\boxed{x = 38.32^\circ}$$