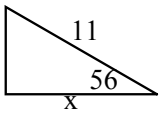
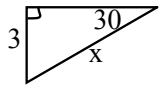
Find the value of x on each.

1.

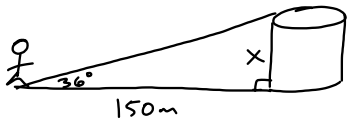


2.



Mar 21-8:06 AM

SOHCAHTOA



150

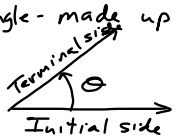
$\tan 36 = \frac{x}{150}$ ·150

$x = 109m$

Mar 21-8:30 AM

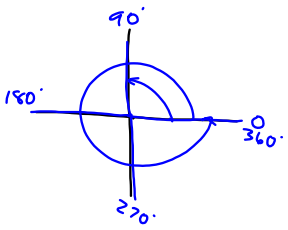
13.2

Angle - made up of two rays.



measured - degrees

radians



m = 39"
y = 36"

ft
m

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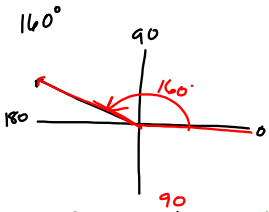
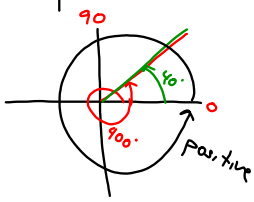
160°



400°



400° & 40°
Coterminal Angles

Mar 21-8:42 AM

$400° - 360 = 40°$

0-360°

$65° + 360 = 425°$

Mar 21-8:44 AM

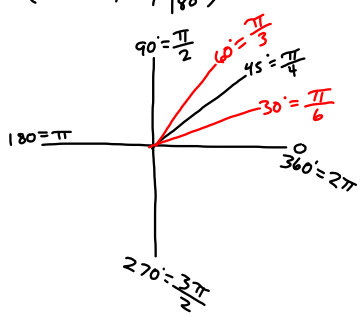
Degrees to Radians (multiply by $\frac{\pi}{180}$)

$\cancel{45°} \cdot \frac{\pi}{\cancel{180}_{4}} = \frac{\pi}{4}$

$\cancel{90°}\left(\frac{\pi}{\cancel{180}_{2}}\right) = \frac{\pi}{2}$

$\cancel{30°} \cdot \frac{\pi}{\cancel{180}_{6}} = \frac{\pi}{6}$

$\cancel{60°} \cdot \frac{\pi}{\cancel{180}} = \frac{\pi}{3}$

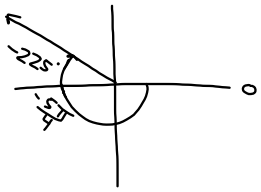


Mar 21-8:46 AM

Radians → Degrees $\frac{180}{\pi}$

$-\frac{5\pi}{4} \cdot \frac{180}{\pi} = -225^\circ$

$-225 + 180 = -45$



Mar 21-8:52 AM

4. 140°

5. -860° $\frac{\pi}{180}$ $\frac{-43}{-860} = -\frac{43\pi}{9}$

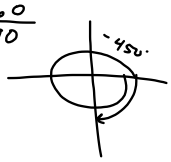
6. $-\frac{3\pi}{5} \times \frac{180}{\pi}$ $-3 \cdot 36 = -108$

7. $\frac{11\pi}{3} \cdot \frac{180}{\pi}$ 660°

$7|140^\circ$ $\frac{\pi}{9|180} = \frac{7\pi}{9}$

Mar 21-8:55 AM

$-450 + 360 = -90$



7-10 D → R $\frac{\pi}{180}$

15-18 R → D $\frac{180}{\pi}$

Mar 21-9:07 AM

You are working for the City Power Department. A 100 foot cable is stretched from a stake in the ground to the top of a pole. The angle of elevation is 57 degrees.

1. Draw a figure to represent the situation.
2. Find the height of the pole to the nearest tenth.
3. Find the distance from the base of the pole to the stake to the nearest tenth.

Mar 21-9:09 AM