

Bellwork Friday, March 21, 2014

1. A triangle has sides of given length: 56, 72, 120

Is this triangle acute, obtuse, or right?

$$56^2 + 72^2 = 8320$$

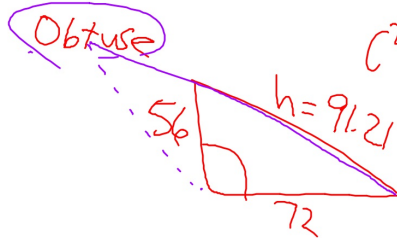
$$120^2 = 14,400$$

$$c^2 > a^2 + b^2$$

obtuse

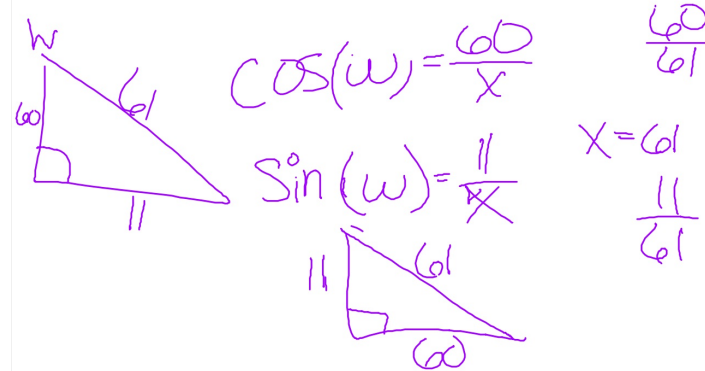
$$c^2 < a^2 + b^2$$

acute

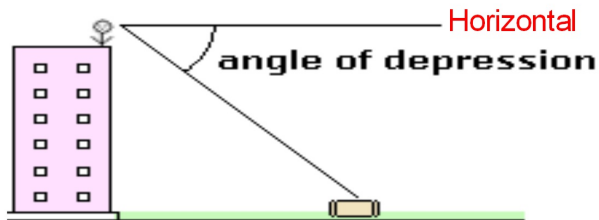


2. Given $\triangle WAT$ is a right triangle and $\tan W = \frac{11}{60}$

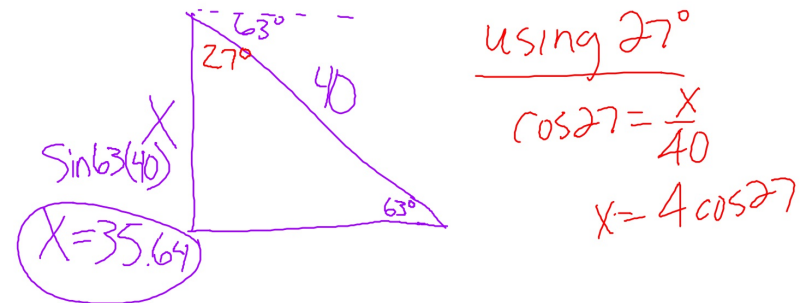
Find $\cos W$ and $\sin W$ as ratios.



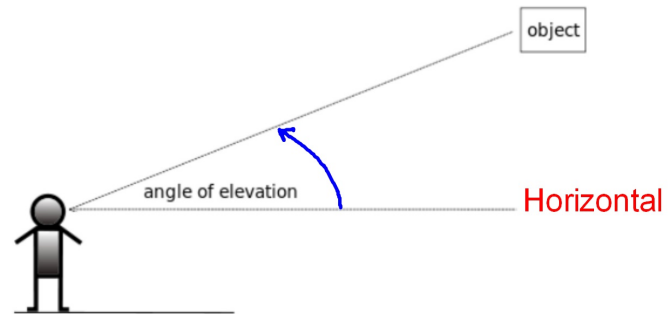
Angle of Depression: Angle measured from the Horizontal downwards.



3. A fireman uses a 40 foot long ladder to reach a person on the balcony of their apartment. If the person on the balcony sees the fireman at the bottom of the ladder with an angle of depression of 63° find the height of the balcony to the nearest tenth of a foot.



Angle of Elevation: Angle measured from the Horizontal upwards.



4. A weather balloon is released and since there is no wind it rises straight up. A few moments you see the balloon with an angle of elevation of 71° . If you are 50 feet from where the balloon was released find the height of the balloon to the nearest hundredth of a foot.

