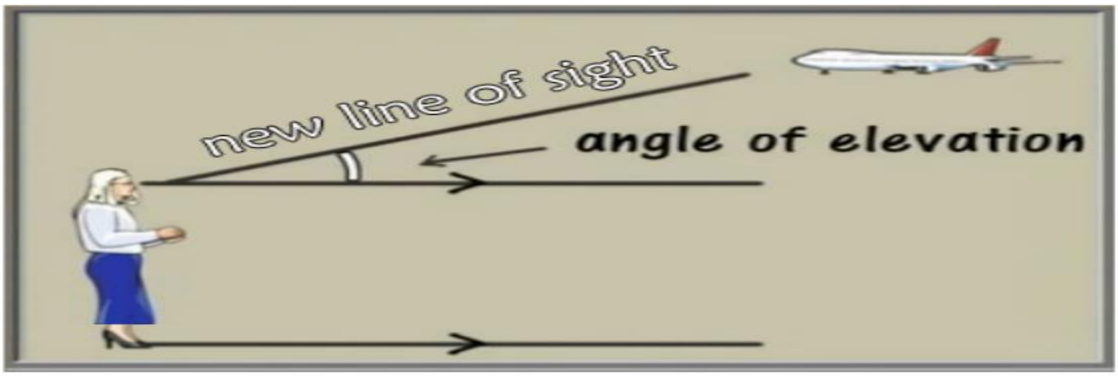
UNIT 5 – LESSON 2

ANGLE OF ELEVATION & DEPRESSION

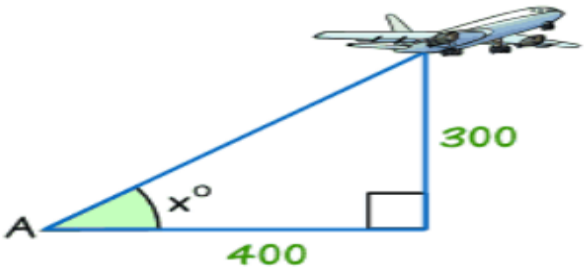
Angle of Elevation



Angle of Elevation

Example

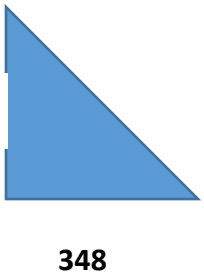
Find the size of the angle of elevation of the plane from point A on the ground.



$\text{Tan}^{-1}(\frac{300}{400})$ = 36.86° (MAKE SURE THE CALCULATOR IS IN "DEGREE" MODE)

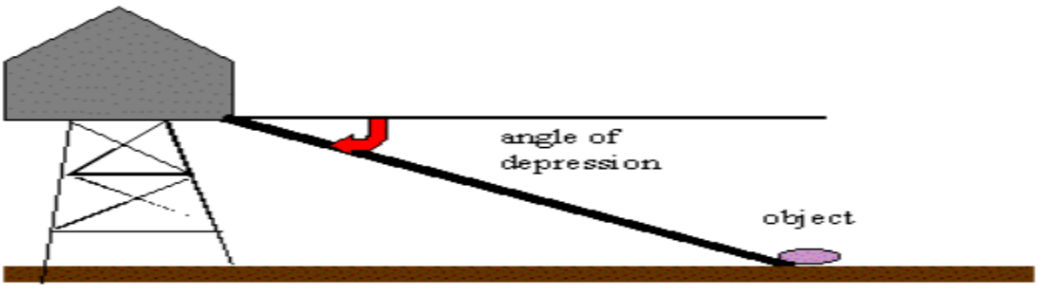
Are you a Master of Content?

1. A pillar of height 222 ft casts a shadow of 348 ft long. Find the measure of the angle of elevation of the sun.



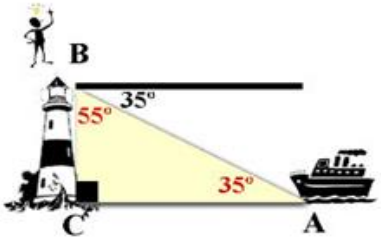
$\text{Tan}^{-1}(\frac{222}{348})$ = 32.53°

Angle of Depression



Angle of Elevation = $\frac{\text{Angle of Depression}}{\text{\_\_\_\_\_}}$

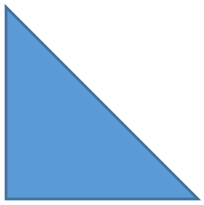
***Alternate Interior Angles = Congruent Angles



Are you still a master?

1. Simon stands at 140 m away from the base of a building of height 50.96 m. Find the angle of depression of Simon from the top of the building.

50.96



140

$\text{Tan}^{-1}\left(\frac{50.96}{140}\right) = 20^{o}$

2. A person stands at the window of a building so that his eyes are 12.6 m above the level ground in the vicinity of the building.
An object is 58.5 m away from the building on a line directly beneath the person.
Compute the angle of depression of the person's line of sight to the object on the ground.