

Angles of...

Elevation

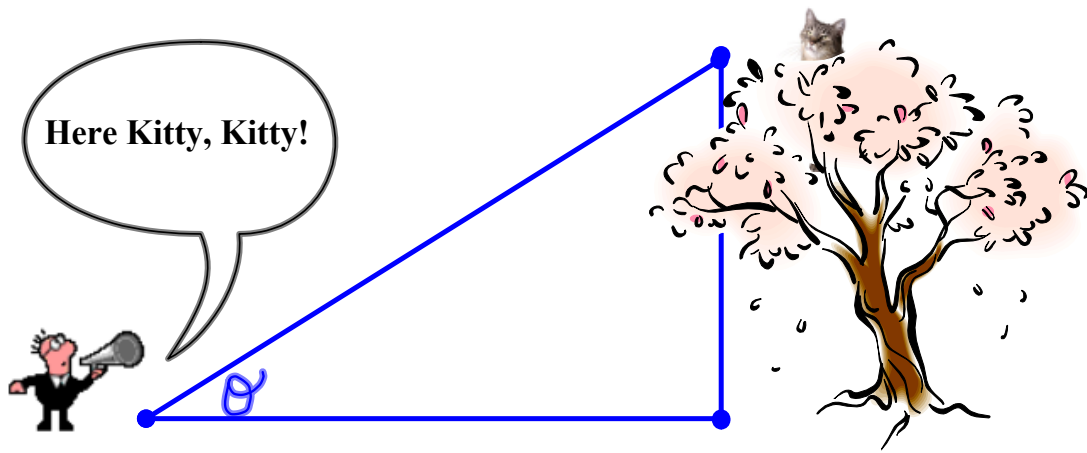


and



Depression!

# Angle of elevation:

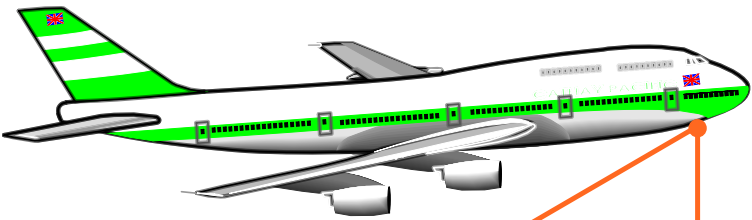


Angle of elevation - is the angle between the ground and the line of sight.  
(angle of inclination)



Always from the GROUND up

Angle of elevation:



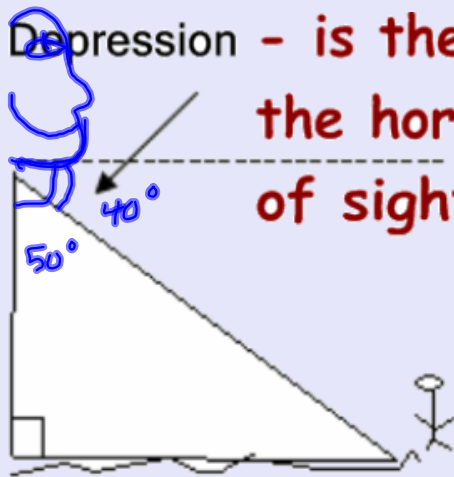
Try This....



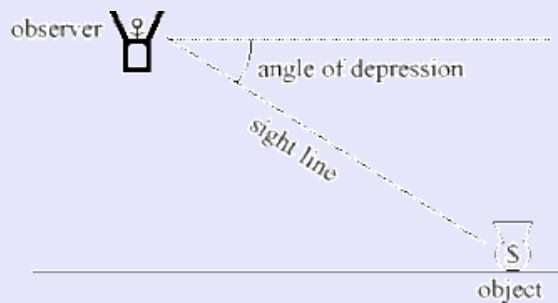
1. Stand with your back to the wall.
2. Hold your head against the wall.
3. Do NOT move!!!
4. Look at your toes.

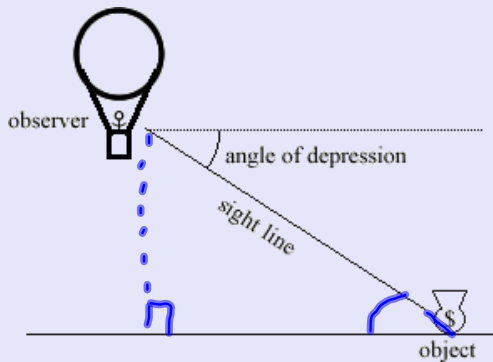


Angle of Depression - is the angle between the horizon and the line of sight.



Always outside the triangle

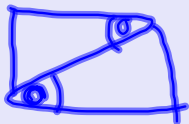




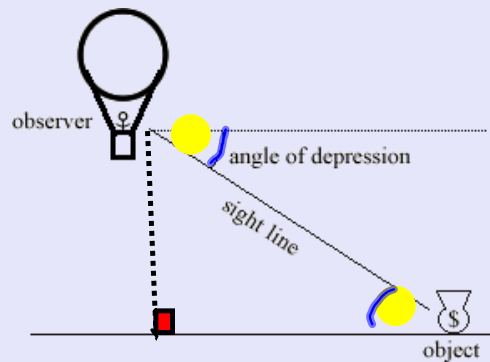
How does angle of depression help if it isn't even in the triangle?

Alternate angles are equal!

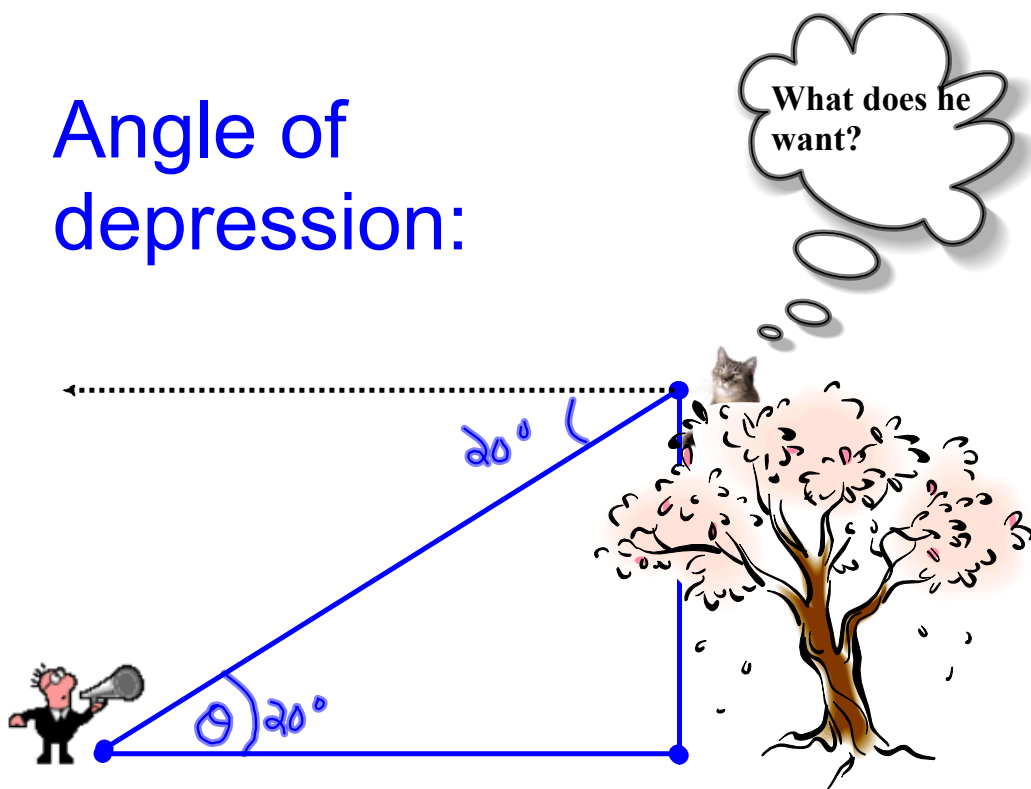
**"Z" Rule**



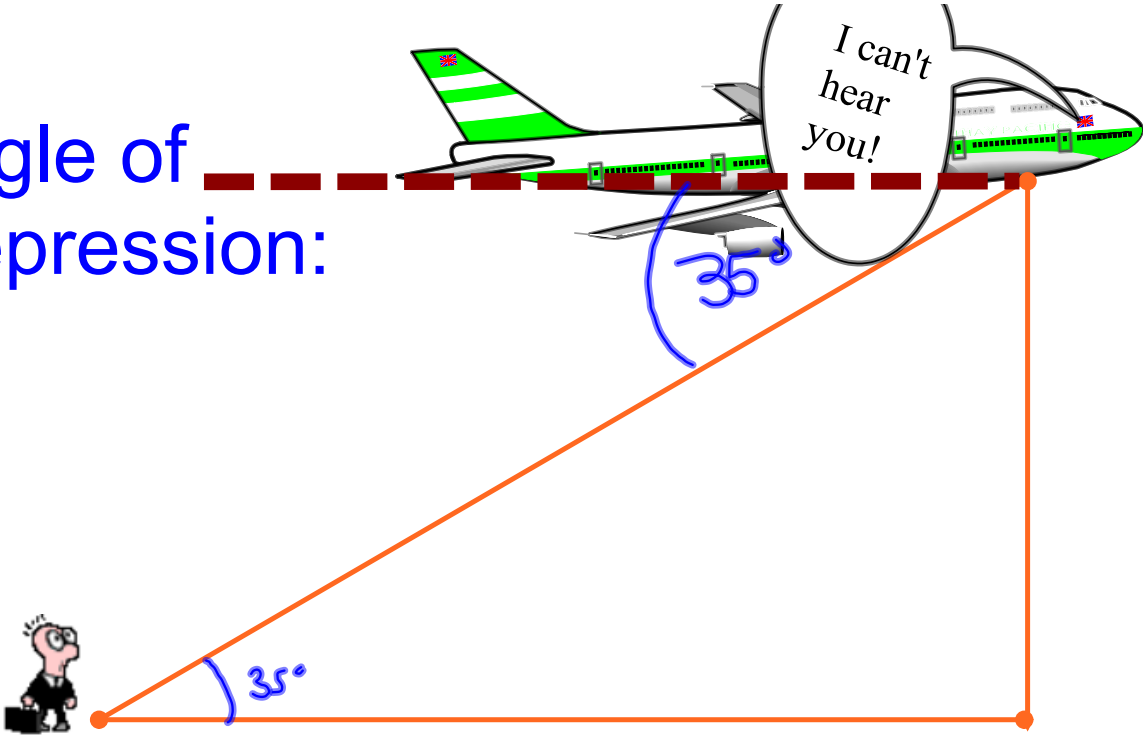
Angle of Elevation



# Angle of depression:

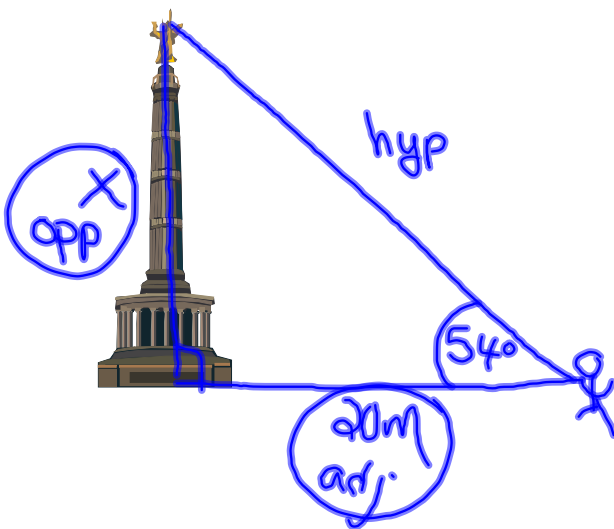


Angle of depression:





The angle of elevation to the top of a tower is 54 degrees. If the person is 20m away from the tower, how tall is the tower?



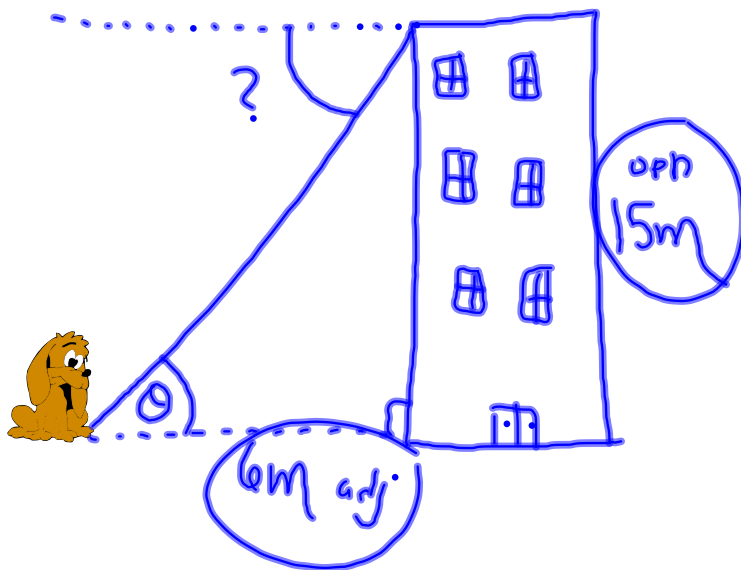
$$\tan \theta = \frac{o}{a}$$

$$\tan 54^\circ = \frac{X}{20}$$

$$\frac{1.3764}{1} = \frac{X}{20}$$

$$X = 27.5$$

Calculate the angle of depression from the top of a building to a puppy on the ground, if the building is 15m tall and the puppy is 6m from the building.



$$\tan \theta = \frac{o}{a}$$

$$\tan \theta = \frac{15}{6}$$

$$\tan \theta = 2.5$$

$$\theta = 68^\circ$$



## Attachments

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TrigTheta WS 5.docx

TrigTheta WS 8 (ele dpre).docx