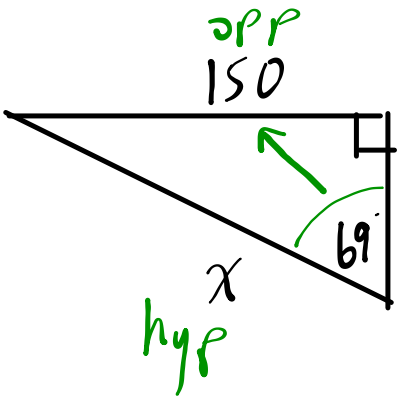
Hw???

2h)



SOH CAH TOA

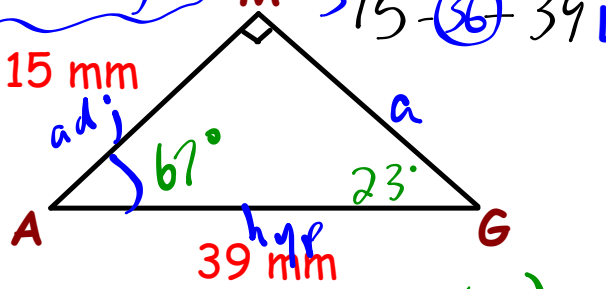
$\frac{x \sin 69°}{\sin 69°} = \frac{150 \cdot x}{x \sin 69°}$

$x = \frac{150}{\sin 69°}$

$x = 160.7$

EXAMPLE - Solve the triangle (find ALL sides and angles)

∠ → angle



x^3 5-12-13

15-36-39

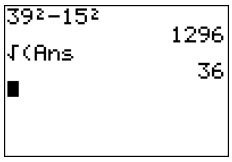
a = 36 mm

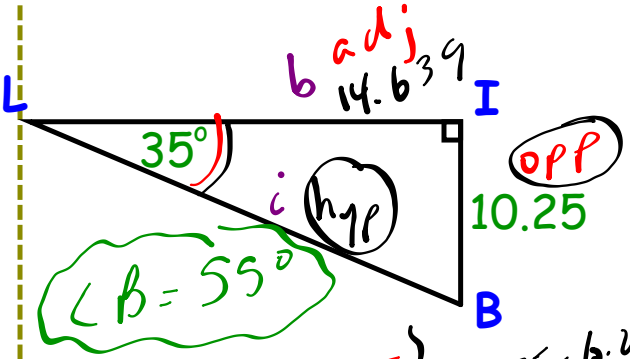
$\cos^{-1}\cos A = \left(\frac{15}{39}\right)$

$\cos^{-1}$

∠A = 67°

∠G = 23°





∠B = 55°

$\tan 35° = \frac{10.25}{b}$

$b = \frac{10.25}{\tan 35°}$

b = 14.639

$\sin 35 = \frac{10.25}{i}$

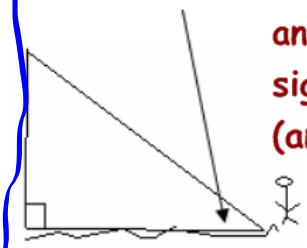
$i = \frac{10.25}{\sin 35°}$

i = 17.870

Applications of Right Angle Trigonometry

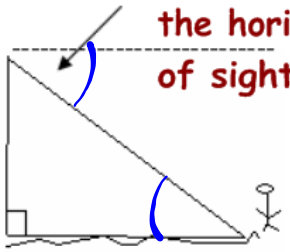
ANGLE OF ELEVATION/DEPRESSION

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



Always from the GROUND up

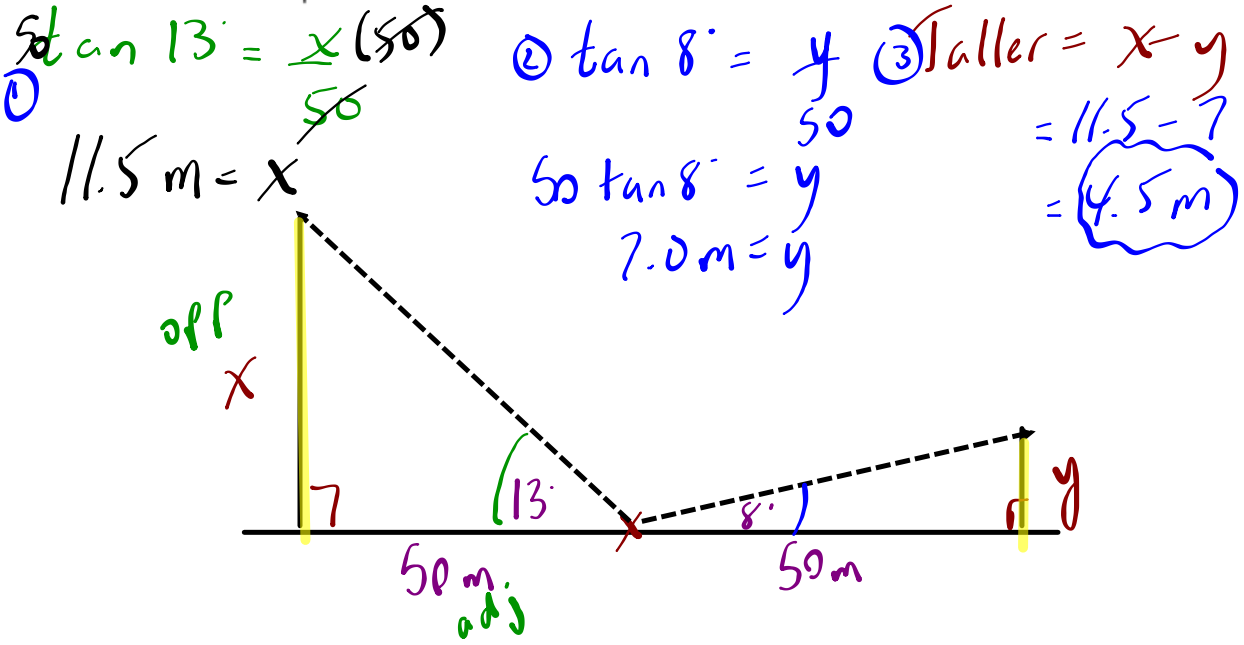
Angle of Depression - is the angle between the horizon and the line of sight.

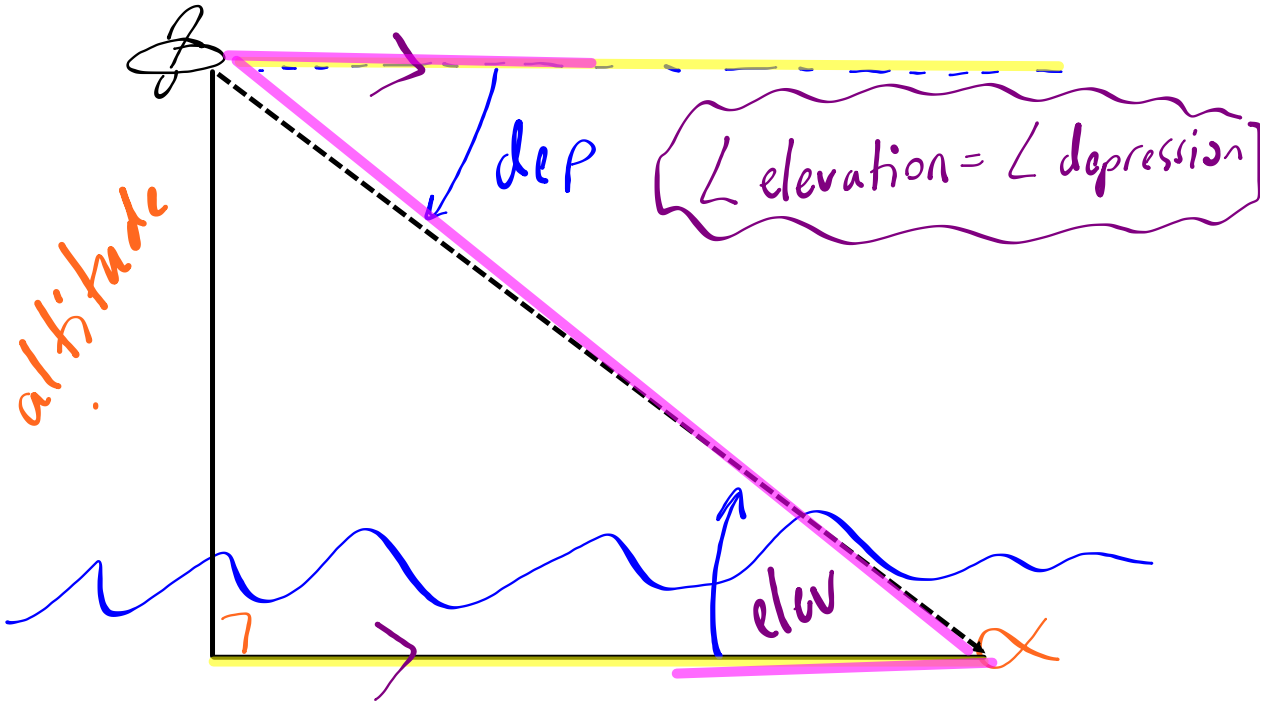


Always outside the triangle

Example 1:

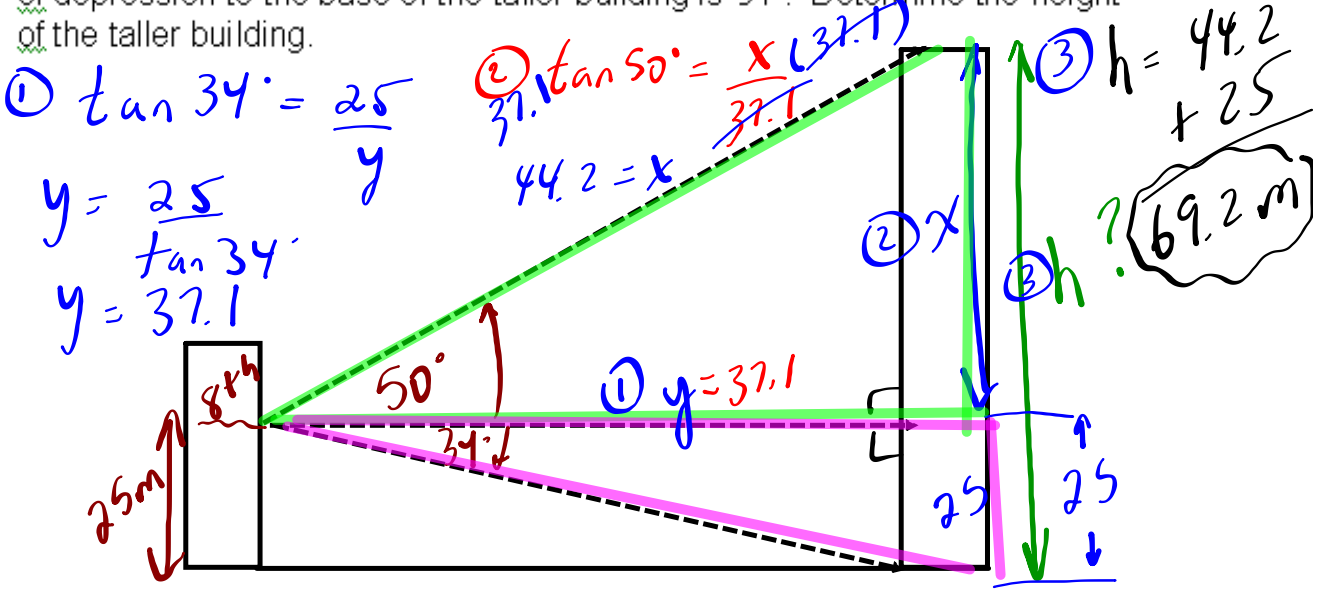
Two trees are 100m apart. From a point on midway between them, the angles of elevation to their tops are 8° and 13°. How much taller is one tree than the other?

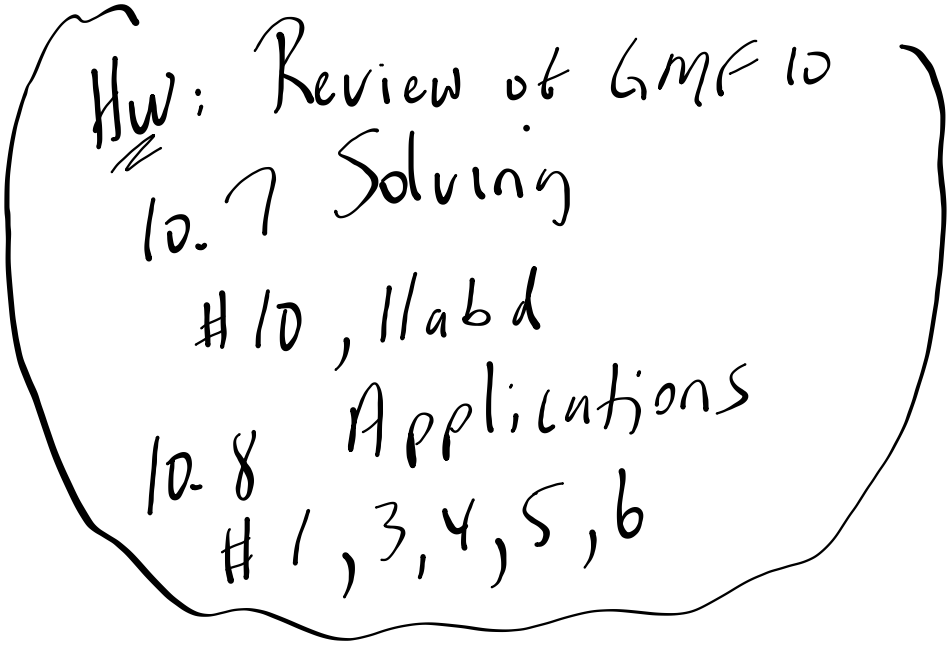



dep
∠ elevation = ∠ depression
altitude
elev
?
x

Example 2:

The 8th floor of an apartment building is 25m above the ground. From the 8th floor, the angle of elevation to the top of the other building is 50°. The angle of depression to the base of the taller building is 34°. Determine the height of the taller building.





* If you are absent you will need to pick up your booklet as this is where the questions are coming from today!