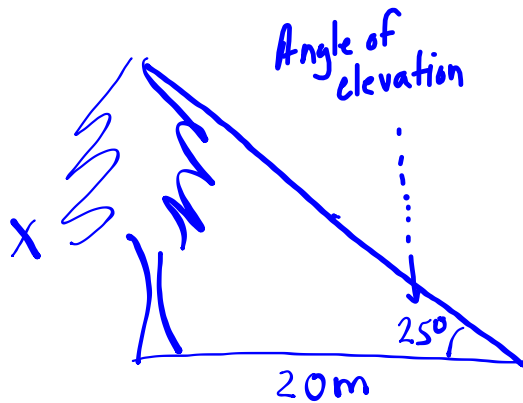


## Life examples...

The angle of elevation (20m from a tree) to the top of the tree is  $25^\circ$ . What is the height of the tree?

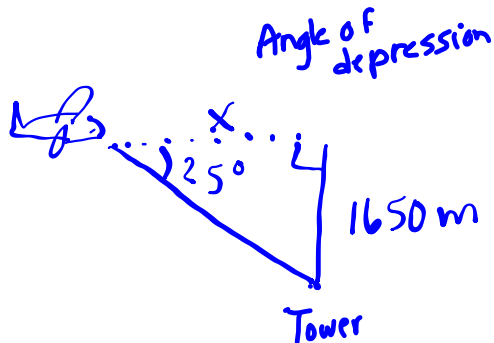


$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

$$\tan 25^\circ = \frac{x}{20}$$

$$x = 20 \tan 25^\circ \\ = 9.3 \text{ m}$$

The angle of depression from a plane to the top of a tower is  $25^\circ$ . The altitude of the plane is 1650 m higher than the top of the tower. What is the horizontal distance from the plane to the tower?



$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

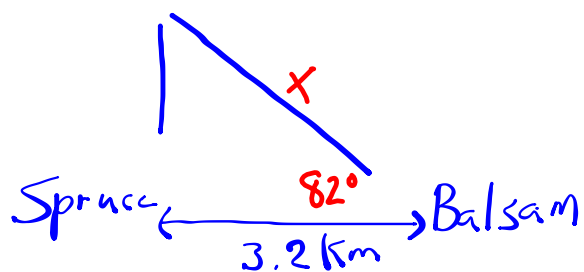
$$\tan 25^\circ = \frac{1650}{x}$$

$$x \frac{\tan 25^\circ}{\tan 25^\circ} = \frac{1650}{\tan 25^\circ}$$

$$x = 3538.4 \text{ m}$$

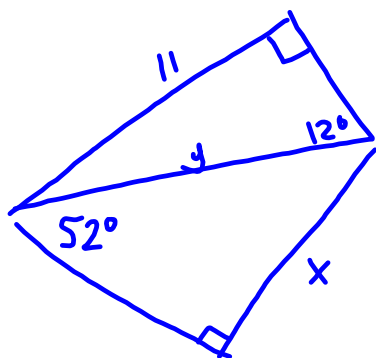
Sheet

# 5. Pine



Homework...worksheet

2.



Find  $y$  first.