

$$\tan^{-1} \frac{6.5}{4.2} = y$$

$$y = 57^\circ$$

$$z = 90 - 57$$

$$z = 33^\circ$$

$$(4.2)^2 + (6.5)^2 = x^2$$

$$17.64 + 42.25 = x^2$$

$$\sqrt{59.89} = \sqrt{x^2}$$

$$x = 7.74$$

$$0 - 5 +$$

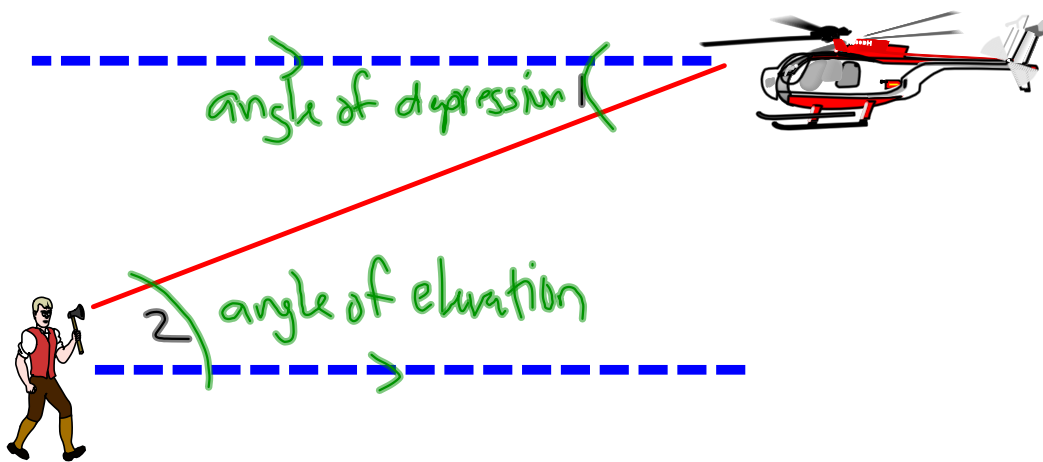
$$6 - 10 \checkmark$$

$$7 \uparrow -$$

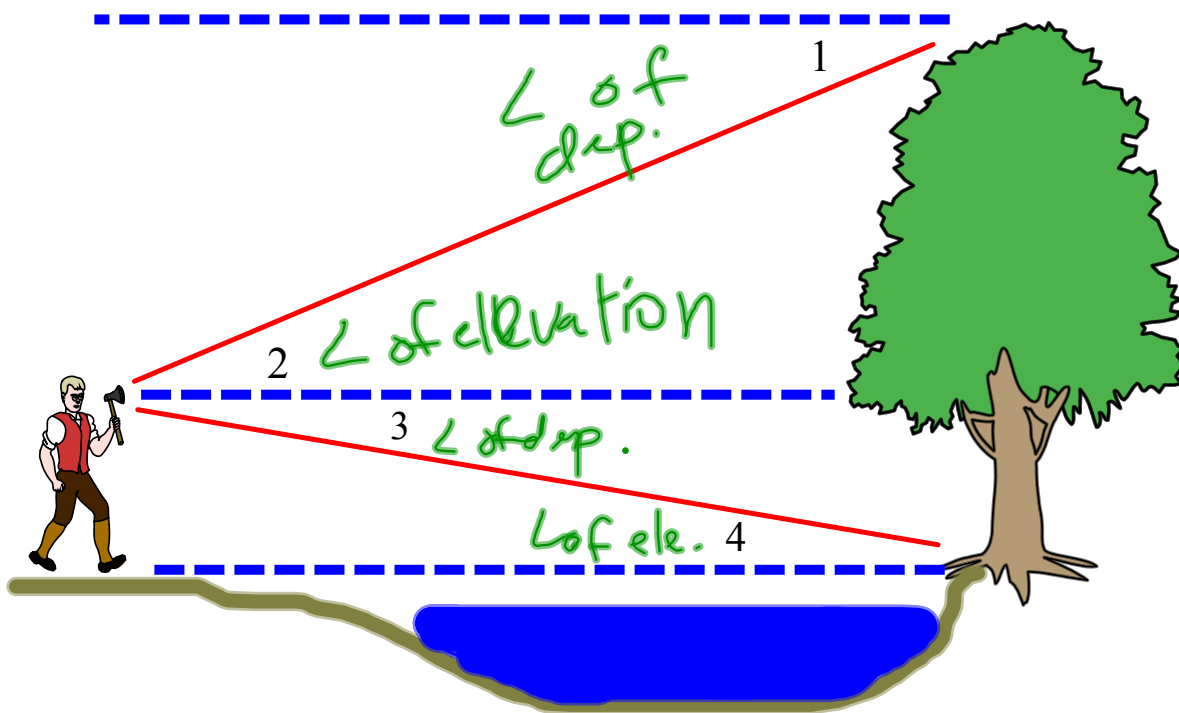
Section 8.4 Angles of Elevation and Depression

Angle of Elevation: Angle formed by a horizontal line and a line of sight above the object.

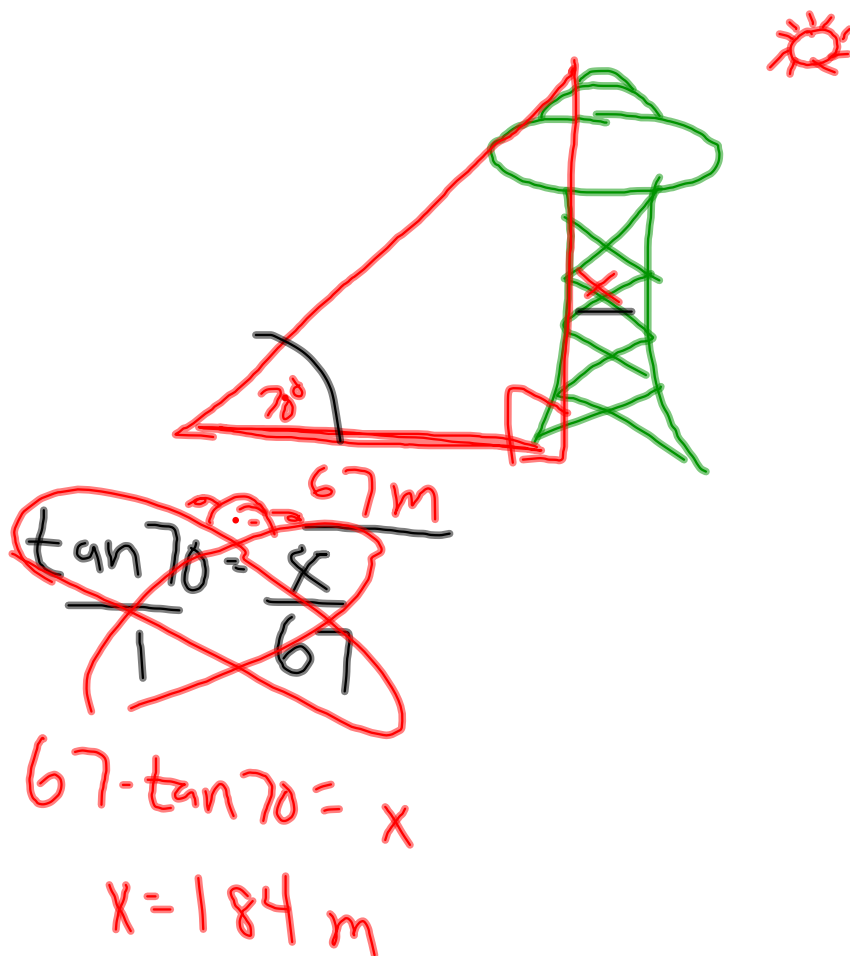
Angle of Depression: Angle formed by a horizontal line and line of sight below the object.



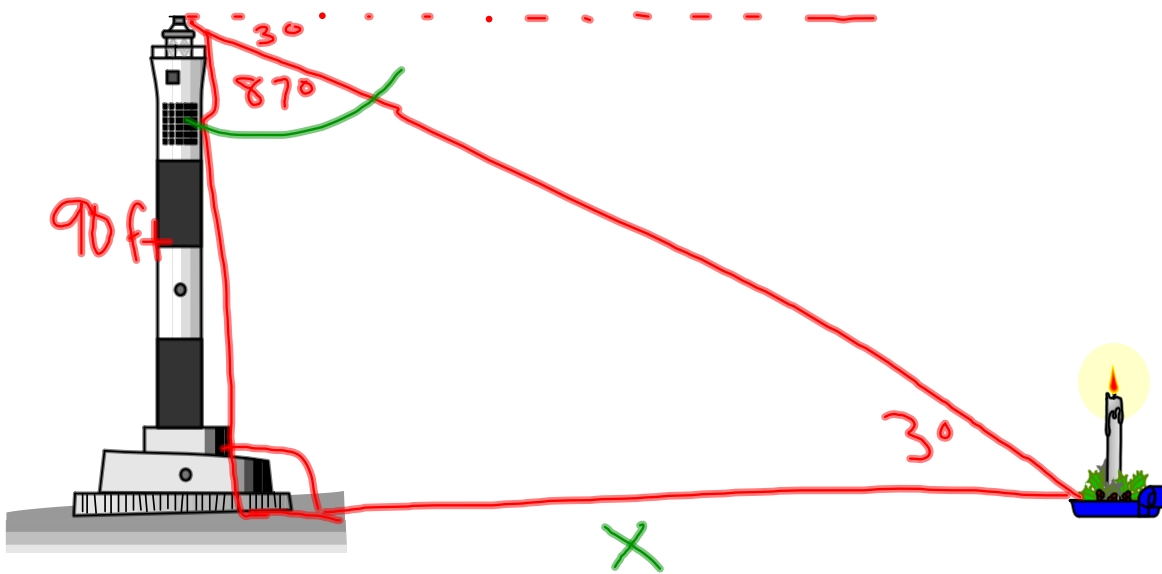
Tell whether each angle is an angle of elevation or depression



The Seattle Space Needle cast a 67 m shadow. If the angle of elevation from the tip of the shadow to the top of the needle is 70° , how tall is the Space Needle?



A forest ranger in a 90 ft. observation tower sees a fire. The angle of depression is 3° . What is the horizontal distance between the fire and the tower?



$$\cancel{\tan 87 = \frac{x}{90}}$$

$$90 \cdot \tan 87 = x$$

$$1.717 \text{ ft} = x$$

Hw: p. 547

1-22, skip 9 + 16