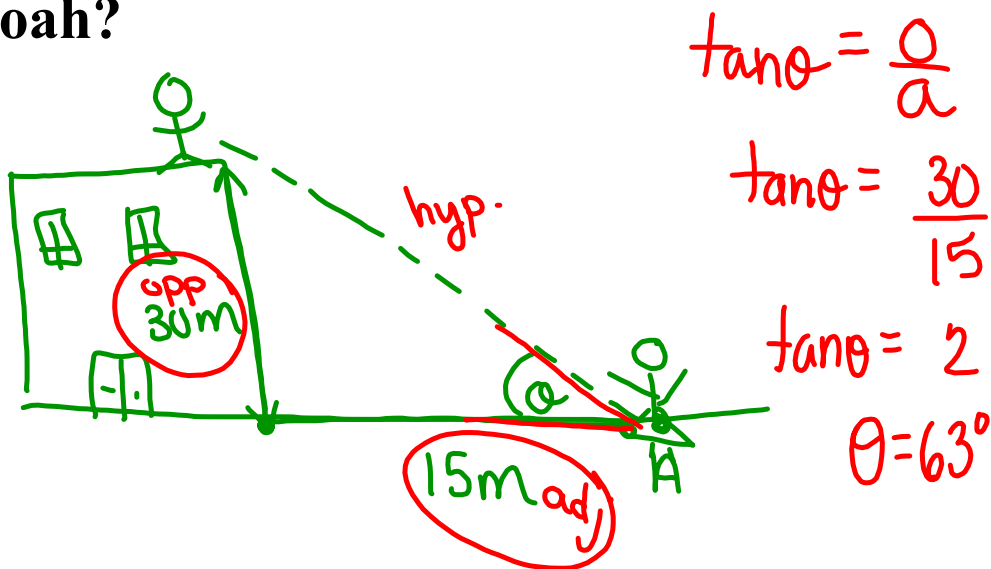
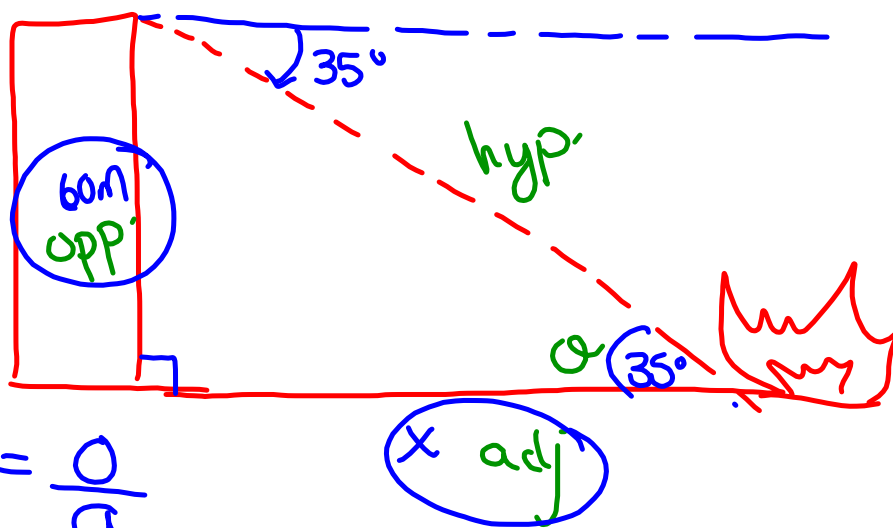


Abby is standing at Point A, which is located 15m from the base of a building that is 30m high. Noah is standing on the roof of the building. What is the angle of elevation that Abby uses to see Noah?



A forest ranger in a tower 60m high sights a fire with an angle of depression of 35 degrees. Calculate the horizontal distance the fire is away from the base of the tower?



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

$$\frac{\tan 35^\circ}{1} = \frac{60}{x}$$

$$\frac{0.7002}{1} = \frac{60}{x}$$

$$\frac{0.7002x}{0.7002} = \frac{60}{0.7002}$$

$$x = 85.7 \text{ m}$$

**Tricky:)**

Point A is located 25m from the base of the building. The angle of elevation from point A to the top of a flagpole which is located on a building 60m tall, is 70 degrees. What is the length of the flagpole?

