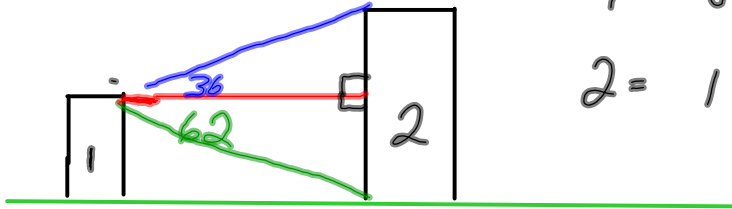
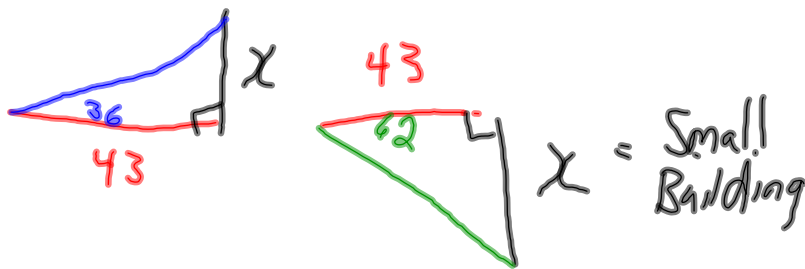


Mary stands on the roof of a building. She looks up at a second building forming an angle of elevation of 36° . She then looks down at the base of the second building forming an angle of depression of 62° . If the buildings are 43 m apart, how tall is each building?



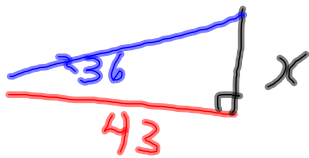
$$1 = 80.87 \text{ m}$$

$$2 = 112.11 \text{ m}$$



Sep 28-1:11 PM

Solution

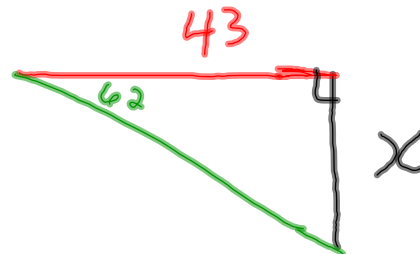


$$\tan = \frac{\text{opp}}{\text{adj}}$$

$$\tan 36 = \frac{x}{43}$$

$$x = \tan 36 \times 43$$

$$x = 31.24$$



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

$$\tan 62 = \frac{x}{43}$$

$$x = \tan 62 \times 43$$

$$x = 80.87$$

Mar 2-2:03 PM