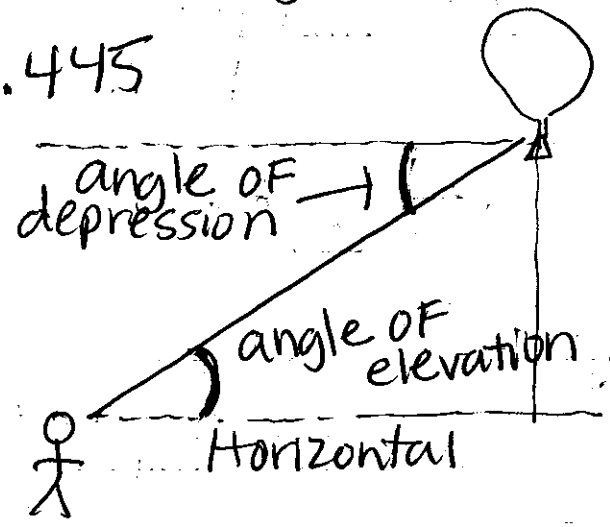
Day 66

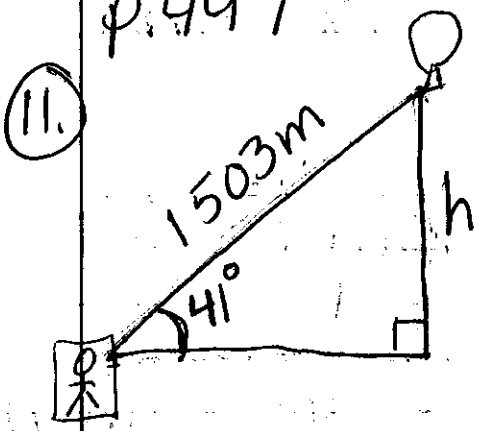
8.5 Angles of Elevation + Depression

p.445



p.447

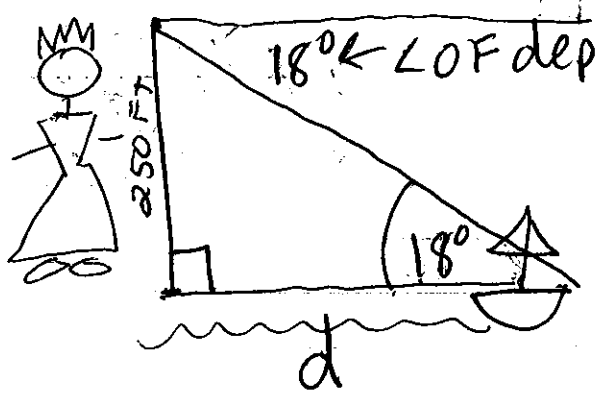
11.



$$\frac{\sin 41^\circ}{1} = \frac{h}{1503}$$

$$h = 986\text{m}$$

14.

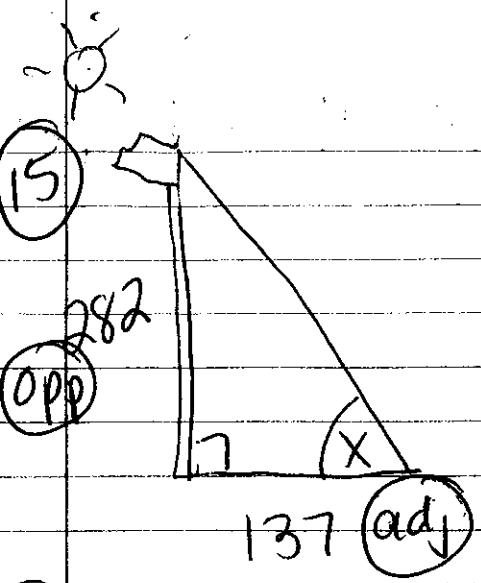


$$\frac{\tan 18^\circ}{1} = \frac{250\text{ ft}}{d}$$

$$250 \div \tan(18)$$

$$d = 769\text{ ft}$$

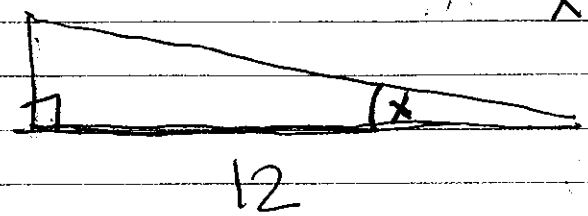
(15)



$x = \tan^{-1}\left(\frac{282}{137}\right)$

$x \doteq 64°$

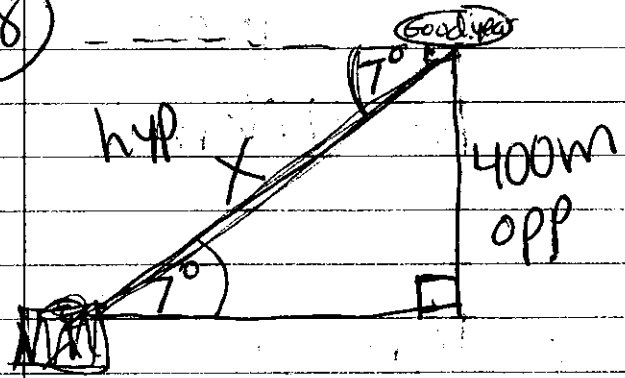
(16)



$x = \tan^{-1}\left(\frac{1}{12}\right)$

$x = 4.8°$

(18)



$\frac{\sin 7°}{1} = \frac{400}{x}$

$x = 400 \div \sin(7)$

$x = 3282$

$x = 3300\text{m}$

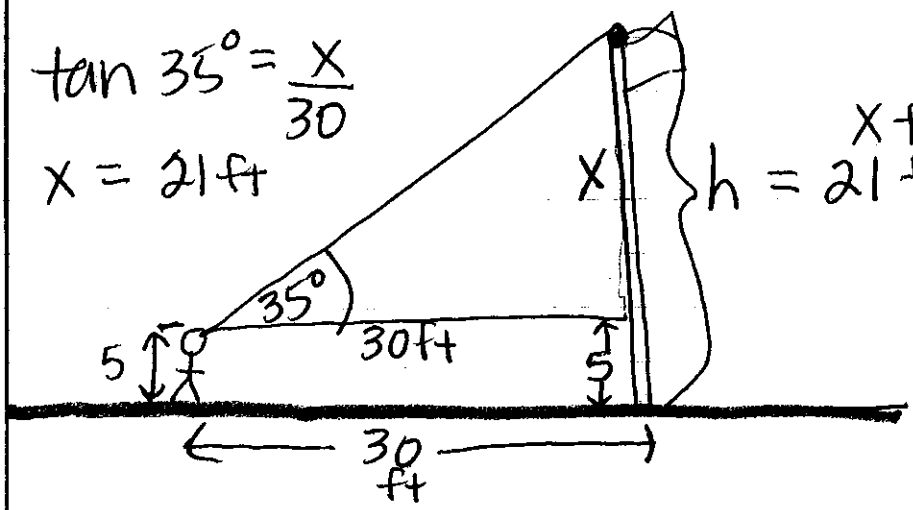
9. A person standing 30 ft from a flagpole can see the top of the pole at a 35° angle of elevation.

a. Draw a diagram.

b. The person's eye level is 5 ft from the ground. Find the height of the flagpole to the nearest foot.

$\tan 35^\circ = \frac{x}{30}$

$x = 21$ ft



6. Ken Pollitt's distance from Canton's water tower is 1,000 feet. If Ken is 6 feet tall and his eyes sight the top of the tower at an angle of 30°, what is the height of the tower?

CW

+ (WKST 1-5)

HW: p. 464 (1-8, 16-22)