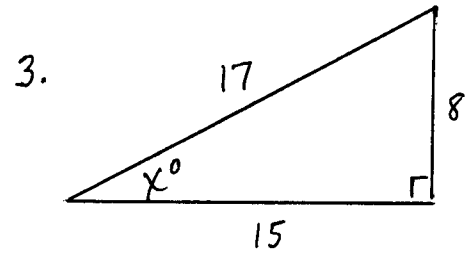
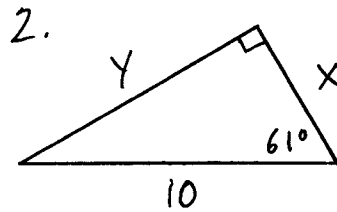
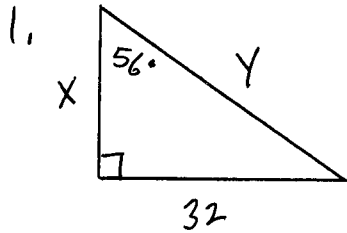


REVIEW PROBLEMS
(9-1 thru 9-3+)

FIND X AND Y:



4. A surveyor measuring the tallest tree in a park is 100 ft from the tree. His angle-measuring device is 5 ft above the ground. The angle of elevation to the top of the tree is 48° . How tall is the tree?

5. Twenty minutes after being launched, a hot-air balloon has risen to an altitude of 300 m. The pilot can still see the starting point on the ground at a 25° angle of depression. How many meters is the balloon from the starting point?

COMPLETE THE FOLLOWING FUNDAMENTAL IDENTITIES:

6. $1 + \underline{\hspace{2cm}} = \sec^2 \theta$ 7. $\cos \theta \cdot \underline{\hspace{2cm}} = 1$

8. SHOW THAT $\frac{1}{\cos \theta} - \cos \theta = \tan \theta \cdot \sin \theta$

★ ANSWERS ★

1. $X \approx 21.6$, $Y \approx 38.6$

4. Approx 116'

2. $X \approx 4.8$, $Y \approx 8.7$

5. Approx 710 m

3. $X \approx 28$

6. $\tan^2 \theta$

7. $\sec \theta$

8. $\frac{1}{\cos} - \cos = \frac{1 - \cos^2}{\cos} = \frac{\sin^2}{\cos} = \frac{\sin}{\cos} \cdot \sin = \tan \cdot \sin \checkmark$