

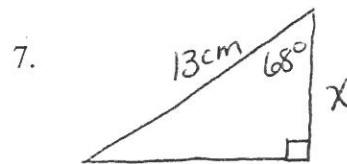
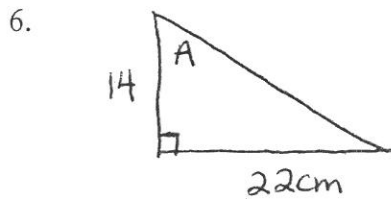
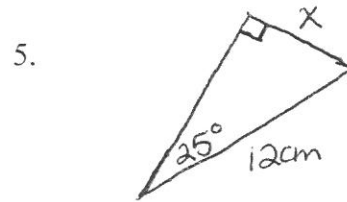
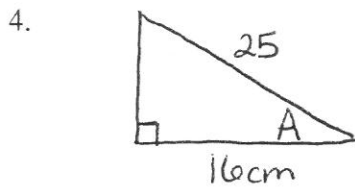
## Review for Chapter 2

1. Find  $\cot(80^\circ)$

2. Find  $\csc(155^\circ)$

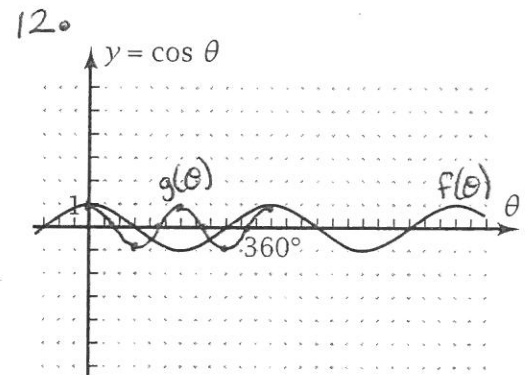
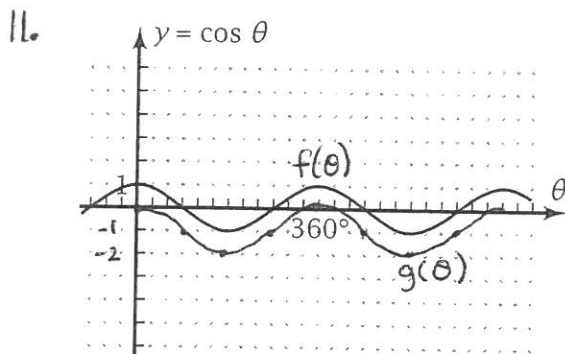
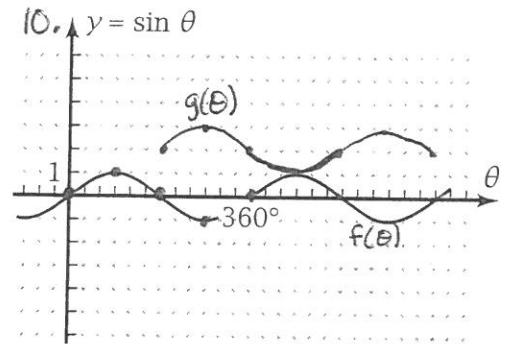
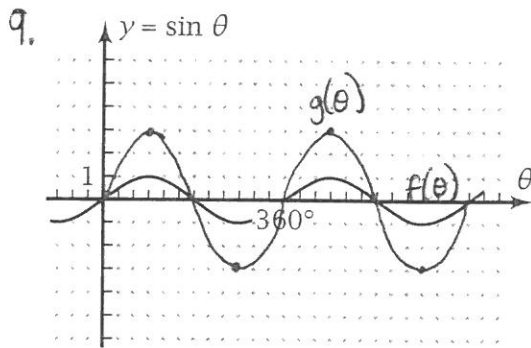
3. Find  $\sec(200^\circ)$

Solve for the missing variable.



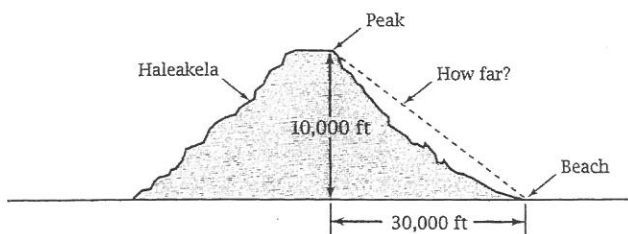
8. From a point on the beach, the angle of elevation to the top of someone parasailing is  $58^\circ$ . From a point 50 feet closer to the parasailer the angle of elevation is  $63^\circ$ . Calculate the height of the parasailer perpendicular to the ground.

The parent graph of sine or cosine is given as  $f(\theta)$ . Function  $g(\theta)$  is also graphed after being transformed from the parent graph. Write an equation for  $g(\theta)$ .



13. **Volcano Problem:** Haleakela (pronounced "hallay-ah-keh-la") is a 10,000-ft-high dormant volcano on Maui, Hawaii (Figure 2-5e). The horizontal distance from the peak of the volcano to the ocean is about 30,000 ft.

Figure 2-5e



- At what angle would you have to look up to see the peak if you were standing on the beach?
- What is the straight-line distance from the beach to the peak?

14. **Lighthouse Problem:** An observer in a lighthouse 80 ft above the surface of the water measures an angle of depression of  $0.7^\circ$  to a distant ship (Figure 2-5c). How many miles is the ship from the base of the lighthouse? (A mile is 5280 ft.)

Figure 2-5c

