**Honors Geom. Extra Trig. Problems Name:**

1. Solve for the angle marked *x,* to the nearest degree. Be sure to indicate what ratio you are using.



2. Find the acute angle formed by the *x*-axis and the line *.*

3. In right triangle ABC (with right angle at C),  and 

*a.* What is the value of *x*? *b.* What is the measure of ?

4. A boat is approaching a cliff with a height of 120 ft. Initially the angle of elevation is 20°. What is the angle of elevation after the boat has travelled 100 ft. closer?



5. In right triangle PQR the , and .

a) What is the value of *x*? b) What is the measure of ?

6. In right triangle TRI the .

a) What is the value of ? b) What is the measure of?