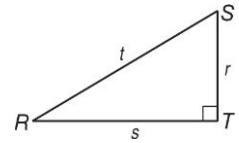


Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_ Geo w/ Trig

**Trig Ratios and Angles of Elevation/Depression Practice**  
(sections 8.4 and 8.5)

1. In  $\triangle RST$ ,  $r = 16$  and  $t = 34$ . Find  $\sin R$ ,  $\cos R$ ,  $\tan R$ ,  $\sin S$ ,  $\cos S$ , and  $\tan S$ . Express each ratio as a fraction and as a decimal to the nearest hundredth.



2. Kyle notices a cat sitting in a tree, at an angle of elevation of  $58^\circ$ . If Kyle is standing 12 feet from the base of the tree, what is the direct distance between Kyle and the cat? Round your answer to the nearest hundredth.
3. A scuba diver swimming along the surface of the ocean sees a barracuda lingering on the bottom of the ocean floor, at an angle of depression of  $39^\circ$ . If the depth of the ocean is 55 feet, how far is the scuba diver from the barracuda? Round your answer to the nearest hundredth.
4. From the top of a 120-foot-high tower, an air traffic controller observes an airplane on the runway at an angle of depression of  $19^\circ$ . How far from the base of the tower is the airplane? Round your answer to the nearest hundredth.
5. The acute angles of right triangle  $\triangle PQR$  are  $\angle P$  and  $\angle R$ .
- Draw the right triangle.
  - If  $\tan P = \frac{24}{7}$ , then which two side lengths can you label? Label them on the triangle.
  - Find  $\tan R$ ,  $\sin R$ , and  $\cos P$ .