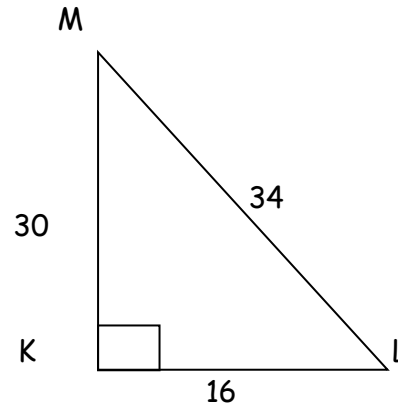


Find the indicated trigonometric ratio as a fraction and as a decimal rounded to the nearest tenths.

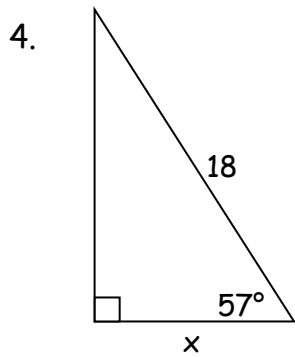
1.  $\sin M =$  \_\_\_\_\_ or \_\_\_\_\_

2.  $\tan L =$  \_\_\_\_\_ or \_\_\_\_\_

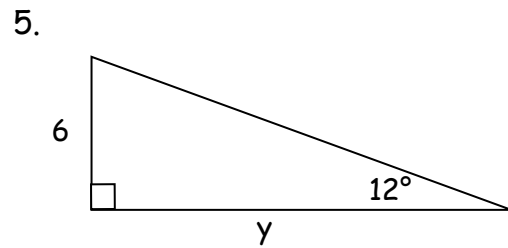
3.  $\cos L =$  \_\_\_\_\_ or \_\_\_\_\_



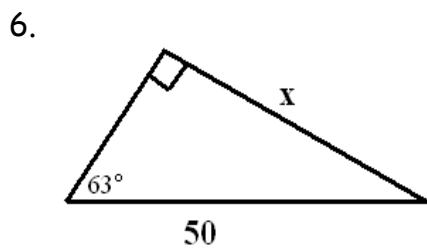
Find the value of  $x$  and  $y$ . Round the lengths of segments to the nearest tenth.



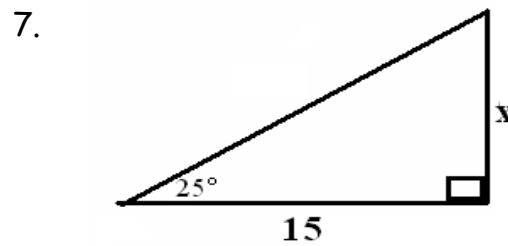
$x =$  \_\_\_\_\_



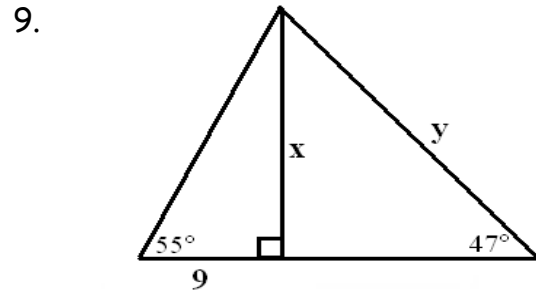
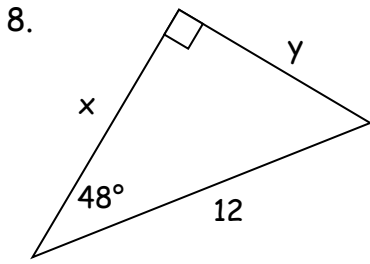
$y =$  \_\_\_\_\_



$x =$  \_\_\_\_\_



$x =$  \_\_\_\_\_



$x =$  \_\_\_\_\_,  $y =$  \_\_\_\_\_

$x =$  \_\_\_\_\_,  $y =$  \_\_\_\_\_

10. You are preparing to land an airplane. You are on a straight-line approach path that forms a  $3^\circ$  angle with the runway. What is the distance  $d$  along this approach path to your touchdown point when you are 500 feet above the ground? Round your answer to the nearest foot.

11. The angle of elevation from a sailboat to the top of a 121-ft lighthouse on the shore measures  $16^\circ$ . To the nearest foot, how far is the sailboat from shore?

