## 25. The legs of a right triangle are a length of 9 and 12. How long is the hypotenuse?

26. A right triangle has a hypotenuse length of 26 and a leg length of 24. How long is the other leg?

$$27. \sin\theta = \frac{5}{12} \rightarrow \cos(90 - \theta) = \underline{\qquad} \qquad 28. \cos\theta = \frac{3}{7} \rightarrow \sin(90 - \theta) = \underline{\qquad} \qquad 29. \tan\theta = \frac{7}{24} \rightarrow \tan(90 - \theta) = \underline{\qquad} \qquad 30. \tan\theta = \frac{4}{3} \rightarrow \sin(90 - \theta) = \underline{\qquad} \qquad 31. \sin 12 = \cos \underline{\qquad} \qquad 32. \cos 53 = \sin \underline{\qquad} \qquad 32. \cos 53 = \sin \underline{\qquad} \qquad 33. \sin \theta = \frac{4}{3} \rightarrow \sin \theta = \frac{1}{3} \rightarrow \sin$$

- 33. A tree casts a shadow that is 42 feet long. The angle of elevation to the top of the tree is 38°. How tall is the tree?
- 34. A radio tower is 78 feet tall. Find the angle of elevation to the top of the tower at a point on level ground 60 feet from its base.
- 35. A 16-foot ladder rests against a wall so that the base of the ladder is 6.5 feet from the base of the building. What angle does the ladder make with the wall?
- 36. A girl flying a kite lets out 100 feet of string that makes an angle of elevation of 72° with his line of sight. Find how high the kite is above the ground.
- 37. On a baseball field, it is 90 feet from home plate to 1<sup>st</sup> base and 90 feet from 1<sup>st</sup> base and 2<sup>nd</sup> base. How far is it from home plate to 2<sup>nd</sup> base?