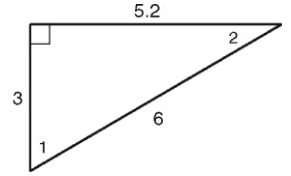


Sine and Cosine Ratios

Practice and Problem Solving: A/B

1. $\sin \angle 1 = \frac{\square}{\square} \approx$

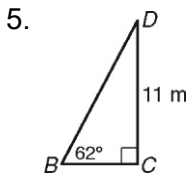
2. $\sin \angle 2 = \frac{\square}{\square} =$



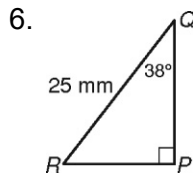
3. $\cos \angle 1 = \frac{\square}{\square} =$

4. $\cos \angle 2 = \frac{\square}{\square} \approx$

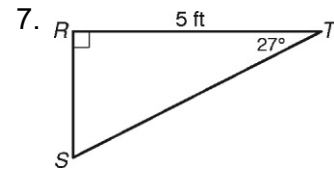
Find each length. Round to the nearest tenth.



$BD =$

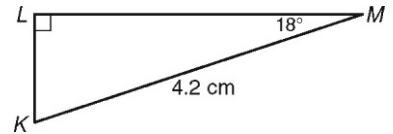


$QP =$

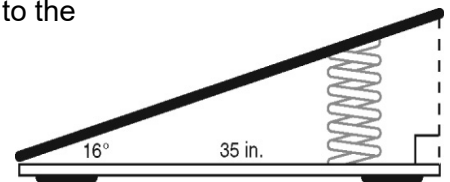


$ST =$

8. Find the perimeter of the triangle.

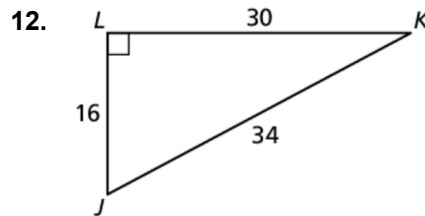
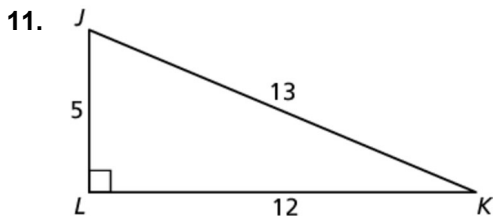


9. What is the length of the hypotenuse of the springboard shown to the right?

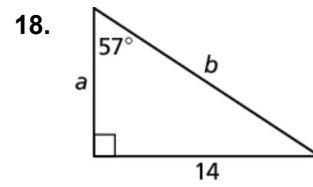
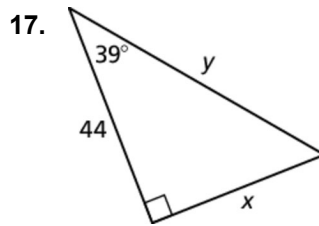
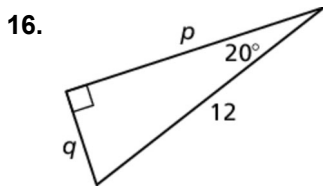
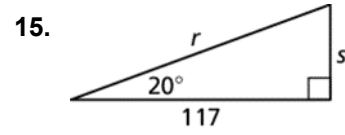
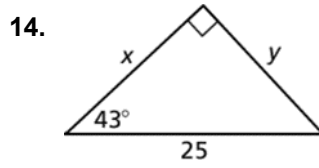
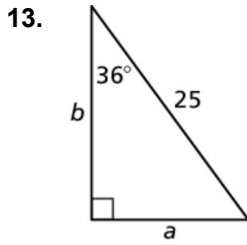


10. What is the height of the springboard (the dotted line)?

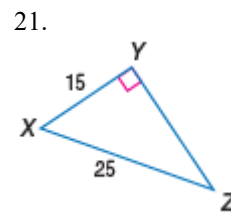
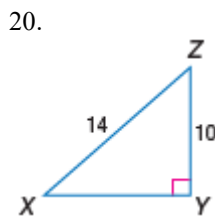
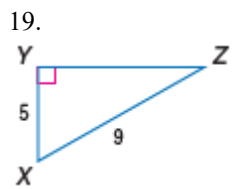
Find $\sin J$, $\sin K$, $\cos J$, and $\cos K$. Write each answer as a fraction.



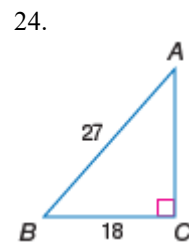
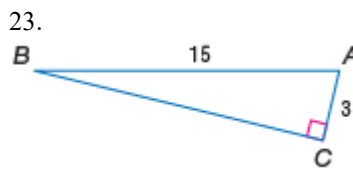
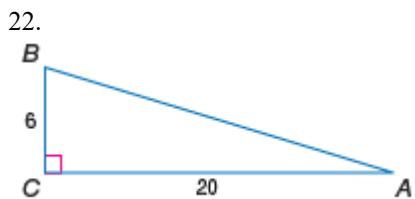
In Exercises 13–18, find the value of each variable. Round your answers to the nearest tenth.



Find the measure of $\angle Z$ to the nearest tenth.

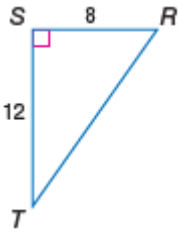


Find the measure of $\angle A$ to the nearest tenth.

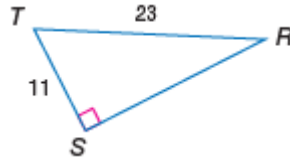


Find the measure of $\angle T$ to the nearest tenth.

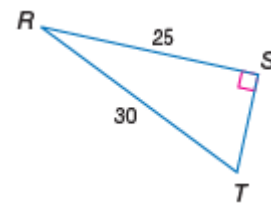
25.



26.

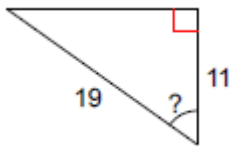


27.

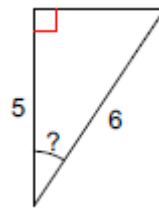


Find the measure of the indicated angle to the nearest degree.

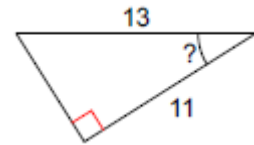
28.



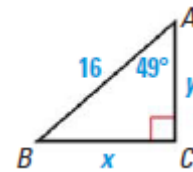
29.



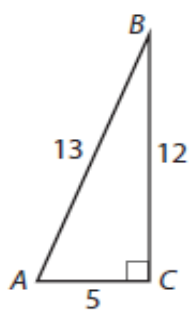
30.



31. Nick uses the equation $\sin 49^\circ = \frac{x}{16}$ to find BC in $\triangle ABC$. Tim uses the equation $\cos 41^\circ = \frac{x}{16}$. Which equation produces the correct answer? Explain.



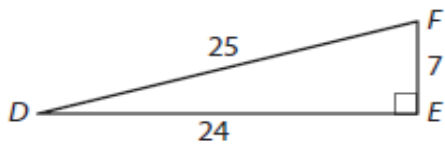
Find the following. Write your answers as fractions.



3. $\sin A$

4. $\cos A$

5. $\cos B$



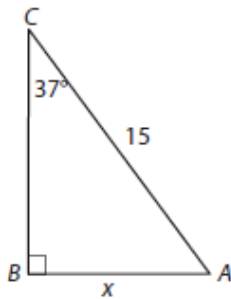
6. $\sin D$

7. $\cos F$

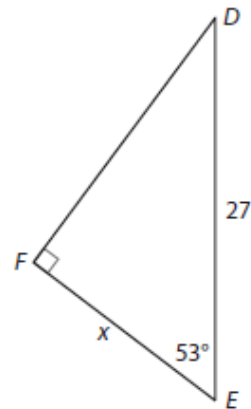
8. $\sin F$

Find the unknown length x in each right triangle, to the nearest tenth.

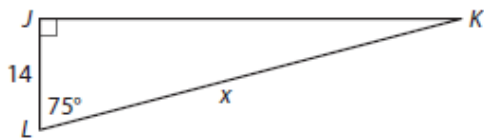
9.



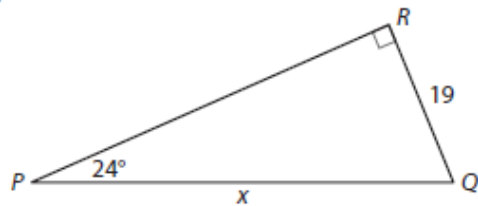
10.



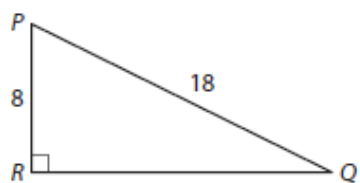
11.



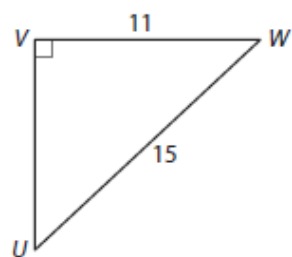
12.



Find each acute angle measure, to the nearest degree.



13. $m\angle P$



14. $m\angle Q$

15. $m\angle U$

16. $m\angle W$