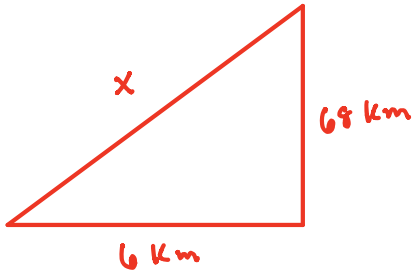
Math 2
Unit 5 Quiz Review

Name Key
Block _____ **Date** _____

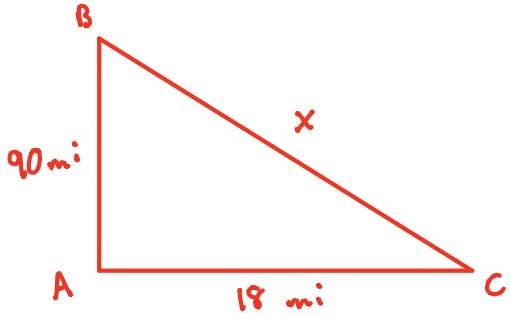
Answer the following to the nearest hundredth.

1. Dick rides his bike 68 km south and then 6 km west. How far is he from his starting point?



68.3 km

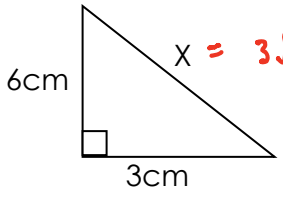
2. Town A is 90 miles form town B, and 18 miles form town C. Town A, B, and C are forming a right triangle at A. The state wants to build a road that connects towns B and C directly. Find the length of this road.



91.8 mi

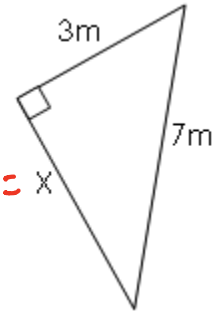
Find the missing side of the triangles. Leave your answer in simplest radical form.

3.



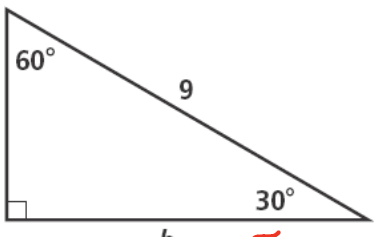
$x = 3\sqrt{5}$ cm

4.



$2\sqrt{10}$ m = x

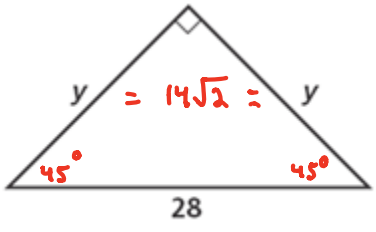
5.



$\frac{9}{2} = a$

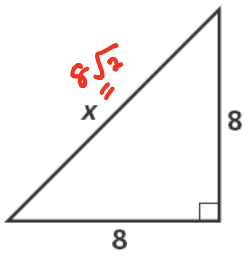
$b = \frac{9\sqrt{3}}{2}$

6.

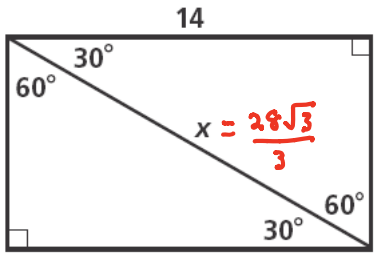


$y = 14\sqrt{2} = y$

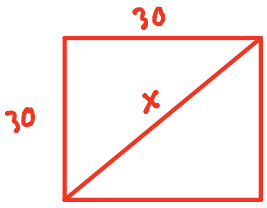
7.



8.

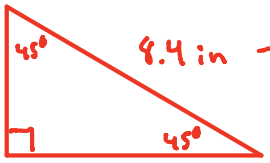


9. Find the length to the nearest centimeter of the diagonal of a square with 30 cm on a side.



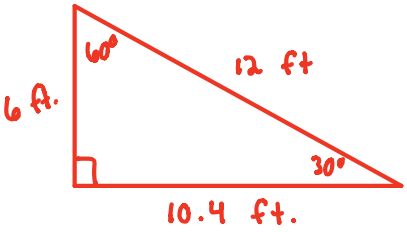
$30\sqrt{2}$ cm

10. The hypotenuse of an isosceles right triangle is 8.4 in. Find the length of a side to the nearest tenth.



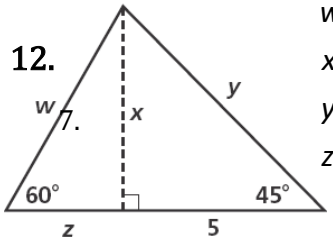
$\frac{21\sqrt{2}}{5}$ in

11. In a 30°- 60° - 90° triangle, the shorter leg is 6 ft long. Find the length of the other two sides to the nearest tenth.



Find the value of each variable. Leave your answers in simplest radical form.

12.



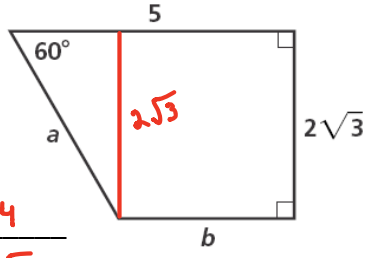
$w = \frac{10\sqrt{3}}{3}$

$x = 5$

$y = 10$

$z = \frac{5\sqrt{3}}{3}$

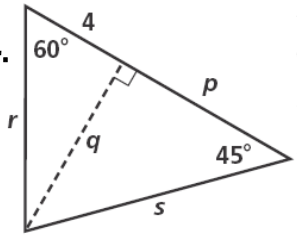
13.



$a = 4$

$b = 2\sqrt{3}$

14.



$p = 4\sqrt{3}$

$q = 4\sqrt{3}$

$r = 8$

$s = 4\sqrt{6}$