8.7 Practice A

Solving Quadratic Equations by Using Square Roots

1. Complete: If x2 = a and a is a positive real number, then x = \_\_\_\_\_\_\_\_\_\_\_ or x = \_\_\_\_\_\_\_\_\_\_\_.

Solve using square roots. Check your answers.

2.  3. 

 

 

The solutions are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_. The solutions are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_.

4.  5.  6. 

 

 

7.  8.  9. 

  

  

 

 

10.  11.  12. 

13.  14.  15. 

Solve. Round to the nearest hundredth.

16.  17.  18. 

19. The area of a square is 225 in2.

a. Write a quadratic equation that can be used to   
find the dimensions of the square. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Solve the equation. What are the dimensions? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.7 Practice B

Solving Quadratic Equations by Using Square Roots

Solve using square roots. Check your answer.

1.  2. 

 

 

The solutions are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_. The solutions are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_.

3.  4.  5. 

 

 

6.  7.  8. 

9.  10.  11. 

12.  13.  14. 

Solve. Round to the nearest hundredth.

15.  16.  17. 

18. The height of a skydiver jumping out of an airplane is given  
by h = −16t2 + 3200. How long will it take the skydiver to  
reach the ground? Round to the nearest tenth of a second.

19. The height of a triangle is twice the length of its base. The  
area of the triangle is 50 m2. Find the height and base to  
the nearest tenth of a meter.

20. The height of an acorn falling out of a tree is given   
by h = −16t2 + b. If an acorn takes 1 second to   
fall to the ground. What is the value of b?