

10.1 Worksheet Geometry

Name: _____

Simplify the radical expression.

1. $\sqrt{25}$

2. $\sqrt{9}$

3. $\sqrt{121}$

4. $\sqrt{36}$

5. $\sqrt{18}$

6. $\sqrt{50}$

7. $\sqrt{48}$

8. $\sqrt{60}$

9. $\sqrt{56}$

10. $\sqrt{125}$

11. $\sqrt{200}$

12. $\sqrt{162}$

Multiply the radicals, then simplify if possible.

13. $\sqrt{7} \cdot \sqrt{2}$

14. $\sqrt{5} \cdot \sqrt{5}$

15. $\sqrt{3} \cdot \sqrt{11}$

16. $2\sqrt{5} \cdot \sqrt{7}$

17. $\sqrt{10} \cdot 4\sqrt{3}$

18. $\sqrt{11} \cdot \sqrt{22}$

Evaluate the expression, then simplify.

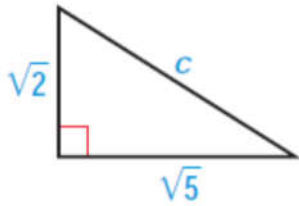
19. $(6\sqrt{5})^2$

20. $(5\sqrt{3})^2$

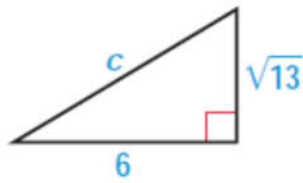
21. $(7\sqrt{2})^2$

Find the length of the hypotenuse. Simplify the radical, if possible.

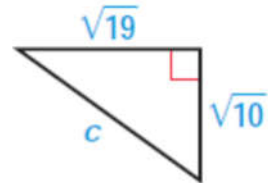
22.



23.

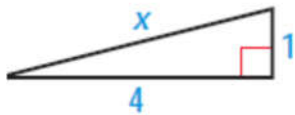


24.

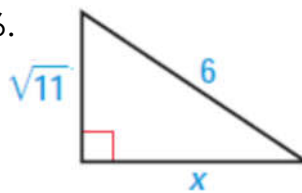


Find the missing side length. Simplify the radical, if possible.

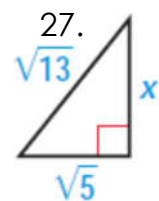
25.



26.



27.



Use a calculator to find the square root to the nearest tenth. Check that your answer is reasonable.

28. $\sqrt{13}$

29. $\sqrt{6}$

30. $\sqrt{91}$

31. $\sqrt{34}$