

Find the square root of each number.

1. $\sqrt{49}$

2. $-\sqrt{121}$

3. $\sqrt{-36}$

Evaluate the expression without using a calculator. Show your work for each step.

4. $\sqrt{100} + \sqrt{169}$

6. $\sqrt{40-4} - \sqrt{8+1}$

5. $\sqrt{100-19}$

7. $\sqrt{200+25} + \sqrt{196}$

Compare each expression. Write $<$, $>$, or $=$ in the blank.

8. $\sqrt{100-4}$ _____ $\sqrt{100} - \sqrt{4}$

9. $\sqrt{49} + \sqrt{4}$ _____ $\sqrt{49+4}$

Solve each equation. Express your answer as an integer or a radical. (No decimals.) Show your work.

10. $\sqrt{x} = 7$

14. $2x^2 = 32$

11. $8 = \sqrt{2x}$

15. $x^2 + 4 = 40$

12. $\sqrt{2x+1} = 5$

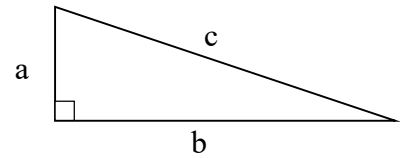
16. $(x-3)^2 = 121$

13. $x^2 = 144$

17. Write the formula for the Pythagorean Theorem.

Find the missing length for each triangle. Show your work.

18. $a = 9$ and $b = 12$. Find c .



19. $a = 5$ and $c = 13$. Find b .

20. $b = 3$ and $c = 8$. Find a .

21. Bart, Lisa, and Maggie are building a skateboard ramp. Lisa decided it's going 12 feet long. Maggie thought it should be 9 feet high. Bart is going to try it out on his skateboard. Determine the length of the hypotenuse of the ramp that Bart will ride down.

