

12.1/12.2 worksheet

1. When will $y = \sqrt{x-2}$ include negative values on the inside of the radicand?

2. Evaluate the function for $x=-1, 0, 1, 2, 3, 4$ Use a table of values to display your answers.

$$y = 2\sqrt{x-1}$$

Evaluate the function for the given value of x. Round your answer to the nearest tenth.

3. $y = 5\sqrt{x}$; 16

4. $y = \frac{1}{3}\sqrt{x-2}$; 12

5. $y = -2\sqrt{x-7}$; 15

6. $y = \sqrt{x^2+1}$; -2

Simplify the radical expression.

7. $\sqrt{24}$

8. $\sqrt{48}$

9. $\sqrt{250}$

10. $\sqrt{108}$

11. $2\sqrt{3} + 5\sqrt{3}$	12. $6\sqrt{5} - \sqrt{5}$
13. $\sqrt{20} + 3\sqrt{5}$	14. $\sqrt{18} + \sqrt{32}$
15. $\sqrt{12} - \sqrt{6} + 4\sqrt{3}$	16. $\sqrt{200} - \sqrt{242} - \sqrt{2}$
17. $\sqrt{8} \cdot \sqrt{2}$	18. $\frac{1}{2}\sqrt{12} \cdot \sqrt{3}$
19. $\sqrt{2}(\sqrt{3} + \sqrt{6})$	20. $\sqrt{7}(3\sqrt{5} - \sqrt{32})$
21. $(\sqrt{3} + 2)^2$	22. $(4 - \sqrt{2})^2$
23. $\frac{6}{\sqrt{3}}$	24. $\frac{6}{\sqrt{6}}$
25. $\frac{4}{1 + \sqrt{3}}$	26. $\frac{1}{\sqrt{3} - 2}$