

LESSON
11-5

Review
Square-Root Functions

Find the domain of each square-root function. Show your work.

1. $y = \sqrt{x-5}$

2. $y = \sqrt{10-2x}$

3. $y = 4\sqrt{x+8}$

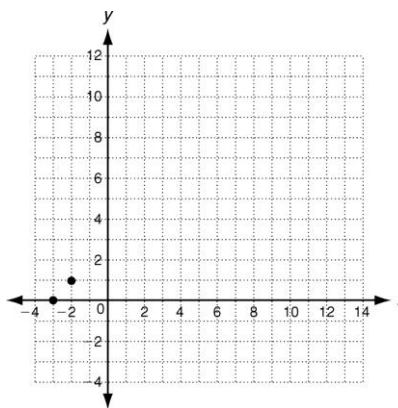
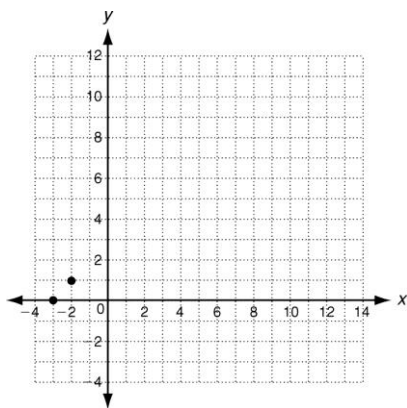
Complete each function table. Then graph each square-root function.

4. $y = \sqrt{x-2}$

5. $y = \sqrt{2x+6}$

x	y

x	y



LESSON
11-6**Practice B****Radical Expressions**

Simplify. All variables represent nonnegative numbers. Show work

1. $\sqrt{32}$

2. $\sqrt{28}$

3. $\sqrt{x^4y^3}$

4. $\sqrt{147}$

5. $\sqrt{45}$

6. $\sqrt{36x^4y^5}$

7. $\sqrt{\frac{7}{25}}$

8. $\sqrt{\frac{3b^2}{27b^4}}$

9. $\sqrt{\frac{m^3}{121n^4}}$

10. $\sqrt{\frac{10b^4}{2b^3}}$

11. $\sqrt{\frac{9y^6}{36y^2}}$

12. $\sqrt{\frac{40m^3}{10n^4}}$

LESSON
11-7**Practice A*****Adding and Subtracting Radical Expressions***

Add or subtract.

1. $2\sqrt{5} + 6\sqrt{5} = \underline{\hspace{2cm}}$

2. $4\sqrt{2} - 6\sqrt{2} = \underline{\hspace{2cm}}$

3. $3\sqrt{m} + 10\sqrt{m} = \underline{\hspace{2cm}}$

4. $\sqrt{7} + 6\sqrt{13} = \underline{\hspace{2cm}}$

5. $7\sqrt{10} + \sqrt{10} - 4\sqrt{10} = \underline{\hspace{2cm}}$

6. $\sqrt{b} + 6\sqrt{2b} - 5\sqrt{b} = \underline{\hspace{2cm}}$

Simplify each expression. Show work.

7. $\sqrt{50} + \sqrt{32}$

8. $\sqrt{27} + \sqrt{192}$

9. $\sqrt{20} + \sqrt{80}$

10. $\sqrt{162} + \sqrt{48}$

11. $4\sqrt{5} + \sqrt{200}$

12. $2\sqrt{12} + 6\sqrt{3}$

13. $\sqrt{25x} + \sqrt{16x}$

13. $\sqrt{48x} + \sqrt{192x}$

14. $\sqrt{48t} + \sqrt{243t} + 3\sqrt{3t}$

LESSON
11-8**Practice B*****Multiplying and Dividing Radical Expressions***

Multiply. Write each product in simplest form. Show work.

1. $3\sqrt{10y}\sqrt{6y}$

2. $\sqrt{8}(\sqrt{12}-\sqrt{2})$

3. $\sqrt{2}(\sqrt{7}-5)$

4. $(4+\sqrt{3})(2-\sqrt{3})$

5. $\sqrt{5}(\sqrt{2}-\sqrt{6})$

6. $\sqrt{5}(\sqrt{2}+\sqrt{8})$

7. $(5+\sqrt{2})(6-\sqrt{2})$

Simplify each quotient. Show work.

8. $\frac{\sqrt{2}}{\sqrt{6}}$

9. $\frac{\sqrt{10}}{\sqrt{11}}$

10. $\frac{\sqrt{13}}{\sqrt{50t}}$

11. $\frac{\sqrt{3}}{\sqrt{3a}}$

12. $\frac{\sqrt{8x}}{\sqrt{5}}$

LESSON
11-9**Practice B****Solving Radical Equations**

Solve each equation. Show your work. Check your answer.

1. $\sqrt{x} = 11$

2. $\frac{\sqrt{x}}{3} = 5$

3. $\sqrt{3x} + 5 = 11$

4. $\frac{\sqrt{2x}}{4} = 2$

5. $\frac{\sqrt{x+5}}{3} = 4$

6. $\frac{3\sqrt{2x}}{4} = 12$

7. $\sqrt{-x} = \sqrt{x+128}$

8. $-3\sqrt{x} = 8$

11. $x = \sqrt{2x+15}$