

Name _____

Date _____

LESSON
8.2**Practice***For use with pages 558–564***Find the vertical and horizontal asymptotes of the graph of the function.**

1. $f(x) = \frac{4}{x-2} + 1$

2. $f(x) = \frac{2x+2}{3x-4}$

3. $f(x) = \frac{x+1}{2x-3}$

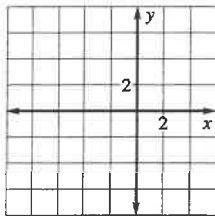
4. $f(x) = \frac{4x}{2x+3}$

5. $f(x) = \frac{2x-1}{x-2}$

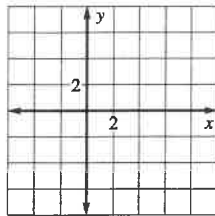
6. $f(x) = \frac{6x-1}{3x+6}$

Graph the function. State the domain and range.

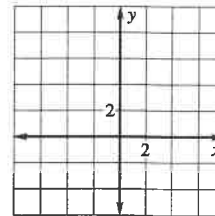
7. $f(x) = \frac{2}{x+3}$



8. $f(x) = \frac{x+1}{x-3}$



9. $f(x) = \frac{4x}{2x-1}$



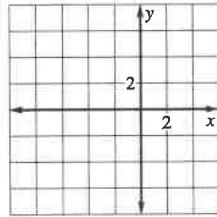
Name _____

Date _____

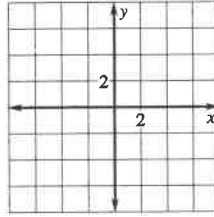
LESSON
8.2

Practice *continued*
For use with pages 558–564

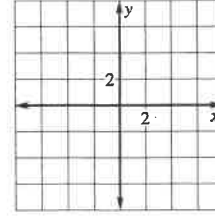
10. $f(x) = \frac{-3}{x+2}$



11. $f(x) = \frac{3x-2}{2x+1}$



12. $f(x) = \frac{4}{3x-2} - 1$



In Exercises 13–16, use the following information.

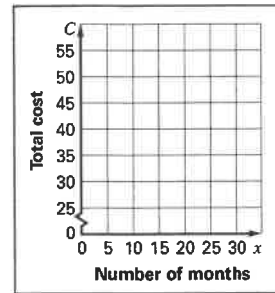
Phone Bill Your local phone company charges a \$65 installation fee and a monthly fee of \$32. Let x represent the number of months of phone service.

13. Write an equation that represents the total cost C .

14. Write an equation that represents the average cost A per month.

15. Graph the model in Exercise 14.

16. How many months until the average cost per month is \$33.25?



Name _____

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LESSON
8.3**Practice**

For use with pages 565-571

Identify the x -intercept(s) and vertical asymptote(s) of the graph of the function.

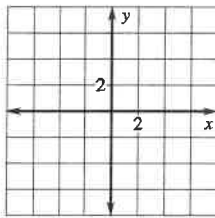
1. $y = \frac{x^2 + 2x - 15}{x^2 - 36}$

2. $y = \frac{x^2 - 2x + 1}{x^2 - 2}$

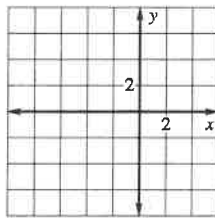
3. $y = \frac{2x - 1}{x^2 + 7}$

Graph the function.

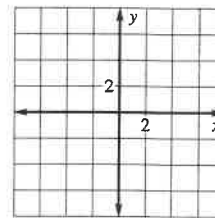
4. $f(x) = \frac{2x + 4}{x^2 - 16}$



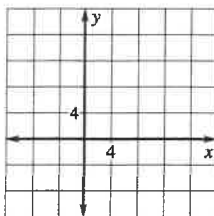
5. $f(x) = \frac{2x^2}{x^2 + 5x + 4}$



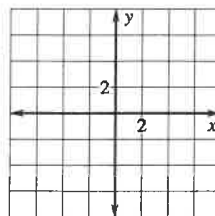
6. $f(x) = \frac{x^2 - 3}{2x^2 + 5x - 12}$



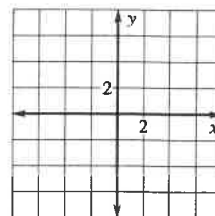
7. $f(x) = \frac{x^2 - 25}{x - 4}$



8. $f(x) = \frac{5x^2 + 7x + 2}{2x^2 - 8}$



9. $f(x) = \frac{2x^2 + 3}{x^3}$



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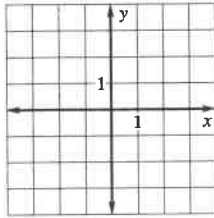
Name _____

Date _____

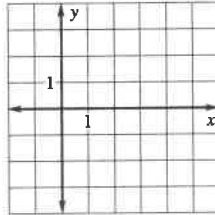
LESSON
6.5 Practice
For use with pages 446–451

Graph the square root function. Then state the domain and range.

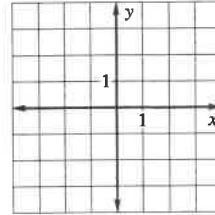
1. $f(x) = \sqrt{x} - 2$



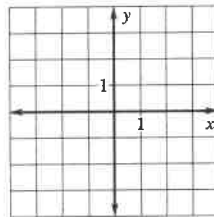
2. $f(x) = \sqrt{x-2}$



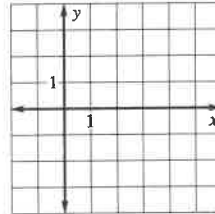
3. $f(x) = 3\sqrt{x+1}$



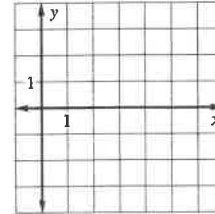
4. $f(x) = \sqrt{x+2} - 2$



5. $f(x) = \sqrt{x-1} + 1$

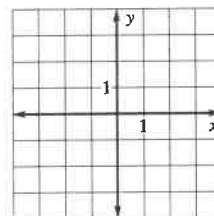


6. $f(x) = -\sqrt{x-3}$

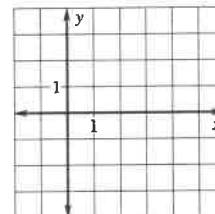


Graph the cube root function. Then state the domain and range.

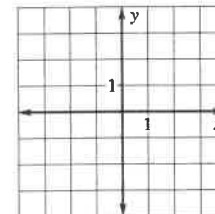
7. $f(x) = \sqrt[3]{x} + 1$



8. $f(x) = \sqrt[3]{x-4}$



9. $f(x) = 3\sqrt[3]{x}$



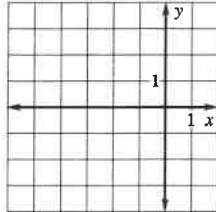
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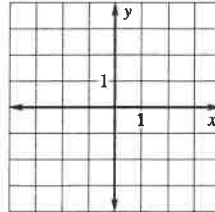
Date _____

LESSON 6.5 Practice *continued*
 For use with pages 446–451

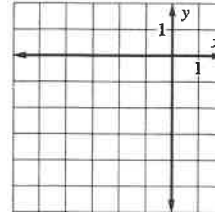
10. $f(x) = \sqrt[3]{x + 2}$



11. $f(x) = -\sqrt[3]{x} - 1$



12. $f(x) = \sqrt[3]{x + 2} - 2$



In Exercises 13 and 14, use the following information.

Speed of Sound The speed of sound in feet per second through air of any temperature measured in degrees Celsius is given by $V = \frac{1087\sqrt{t + 273}}{16.52}$ where t is the temperature.

13. Identify the domain and range of the function.

14. What is the temperature of the air if the speed of sound is 1250 feet per second?

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