LESSON 9.2

NAME _____ DATE _____

Practice B

For use with pages 540–545

Identify the horizontal and vertical asymptotes of the graph of the function. Then state the domain and range.

1. $y = \frac{2}{x + 4} - 5$

2. $y = \frac{3x - 4}{4x + 1}$

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

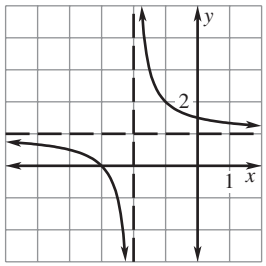
Match the function with its graph.

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

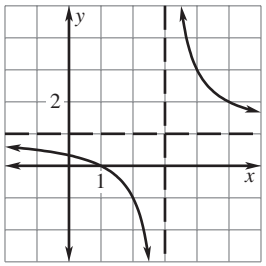
5. $f(x) = \frac{2x - 3}{x - 3}$

6. $y = \frac{x + 3}{x + 2}$

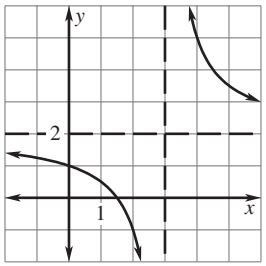
A.



B.



C.



Graph the function. State the domain and range.

7. $y = -\frac{2}{x}$

8. $y = \frac{4}{x - 2} + 3$

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

10. $y = \frac{x - 1}{x - 3}$

11. $y = \frac{3x - 2}{-2x + 3}$

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

Inches of Rain **In Exercises 13–15, use the following information.**

The total number of inches of rain during a storm in a certain geographic area can be modeled by $r = \frac{2t}{t + 8}$ where r is the amount of rain (in inches) and t is the length of the storm (in hours).

13. Graph the model.

14. What is an equation of the horizontal asymptote and what does the asymptote represent?

15. Use the graph to find the approximate number of inches of rain during a storm that lasts 5 hours.