

**7.5** Notetaking with Vocabulary (continued)**Extra Practice**

In Exercises 1–4, solve the equation by cross multiplying. Check your solution(s).

1. 
$$\frac{2}{x+8} = \frac{5}{2x-7}$$

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

3. 
$$\frac{x+1}{x-3} = \frac{x+2}{x-6}$$

4. 
$$\frac{-2}{x-3} = \frac{x+9}{x+21}$$

In Exercises 5–12, solve the equation by using the LCD. Check your solution(s).

5. 
$$\frac{4}{7} - \frac{1}{x} = 6$$

6. 
$$\frac{3}{x+1} + \frac{4}{x+2} = \frac{15}{x+2}$$

7. 
$$\frac{12}{x+4} - \frac{7}{x} = \frac{22}{x^2+4x}$$

8. 
$$3 - \frac{18}{x-1} = -\frac{12}{x}$$

**7.5** Notetaking with Vocabulary (continued)

9. 
$$\frac{2}{x-5} + \frac{3}{x} = \frac{10}{x^2 - 5x}$$

10. 
$$\frac{x+6}{x-4} - \frac{30}{x^2 - 5x + 4} = \frac{3}{x-1}$$

11. 
$$\frac{x}{x-5} + \frac{2}{x+2} = \frac{11}{x^2 - 3x - 10}$$

12. 
$$\frac{x-2}{x-4} - \frac{2}{x-1} = \frac{12}{x^2 - 5x + 4}$$

In Exercises 13 and 14, determine whether the inverse of  $f$  is a function. Then find the inverse.

13. 
$$f(x) = \frac{8}{x-3}$$

14. 
$$f(x) = \frac{12}{x} + 9$$

15. You can complete the yard work at your friend's home in 5 hours. Working together, you and your friend can complete the yard work in 3 hours. How long would it take your friend to complete the yard work when working alone?

Let  $t$  be the time (in hours) your friend would take to complete the yard work when working alone.

	Work Rate	Time	Work Done
<b>You</b>	$\frac{1 \text{ yard}}{5 \text{ hours}}$	3 hours	
<b>Friend</b>		3 hours	