

Name _____ Date 10/31

17. $\frac{3}{x} + \frac{1}{x+1}$

$$\begin{aligned} \frac{3}{x} + \frac{1}{x+1} &= \frac{3(x+1)}{x(x+1)} + \frac{1(x)}{(x+1)(x)} \\ &= \frac{3x+3}{x(x+1)} + \frac{x}{x(x+1)} \\ &= \frac{4x+3}{x(x+1)}, x \neq -1, 0 \end{aligned}$$

21. $\frac{1}{x^2-4} - \frac{1}{x-2}$

18. $\frac{2}{x-2} - \frac{5}{x+3}$

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

19. $\frac{x}{2x-1} + \frac{x+2}{x}$

23. $\frac{x+1}{x^2-16} - \frac{x}{x^2+7x+12}$

20. $\frac{1}{x+3} - \frac{1}{x-3}$

25. $\frac{x+1}{x^2-3x-4} + \frac{x-3}{x-2}$

LESSON **8.2** Skills Practice



Name _____

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11. $\frac{x^2 - 4}{x + 5} \cdot \frac{x + 5}{x - 2}$

15. $\frac{x^2 + 1}{x} \div \frac{x^2 - 1}{2x}$

12. $\frac{x^2 + 2x - 3}{x^2} \cdot \frac{x^3 + x^2}{x + 3}$

16. $\frac{x^2 + 6x - 27}{x^2} \div \frac{x^2 - 3x}{9}$

13. $\frac{x^2 - 4x}{x - 2} \cdot \frac{2 - x}{x}$

17. $\frac{x^2 + 6x + 8}{3x + 2} \div \frac{-x - 4}{3x^2 - x - 2}$

14. $\frac{1}{2x^2 + 3x - 2} \cdot \frac{x^2 - 2x - 8}{x - 4}$