

NAME _____

DATE _____

Module 12 Simplifying Algebraic Expressions by
Factoring Polynomials
Lesson 7 Dividing Polynomials Using Factoring



**additional
practice**

Simplify by factoring.

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|---|--|
| 1. $\frac{b^2 - 8b - 20}{b + 2}$ _____ | 2. $\frac{f^2 + 7f + 6}{f + 6}$ _____ |
| 3. $\frac{d^2 - 17d + 72}{d - 9}$ _____ | 4. $\frac{p^2 + 5p - 50}{p - 5}$ _____ |
| 5. $\frac{x^2 - 12x + 27}{x - 3}$ _____ | 6. $\frac{r^2 + 20r + 100}{r + 10}$ _____ |
| 7. $\frac{k^2 - 64}{k + 8}$ _____ | 8. $\frac{n^2 - 20n + 96}{n - 8}$ _____ |
| 9. $\frac{3d^2 + 9d - 30}{d - 2}$ _____ | 10. $\frac{6z^2 + 29z + 28}{2z + 7}$ _____ |
| 11. $\frac{9y^2 + 30y + 25}{3y + 5}$ _____ | 12. $\frac{2b^2 - 45b + 100}{b - 20}$ _____ |
| 13. $\frac{4r^2 - 8r - 252}{4r + 28}$ _____ | 14. $\frac{3a^2 + 18a + 24}{3a + 6}$ _____ |
| 15. $\frac{4x^2 + 36x + 80}{4x + 20}$ _____ | 16. $\frac{5t^2 - 40t - 165}{5t + 15}$ _____ |
| 17. $\frac{3c^2 - 2c - 8}{4c - 8}$ _____ | 18. $\frac{3h^2 - 11h - 20}{2h - 10}$ _____ |
| 19. $\frac{2k^2 - 5k - 7}{2k + 2}$ _____ | 20. $\frac{4x^2 + 7x - 2}{4x + 8}$ _____ |
| 21. $\frac{5j^2 - 27j - 18}{3j - 18}$ _____ | 22. $\frac{12x^2 + 28x + 15}{6x + 9}$ _____ |
| 23. $\frac{4x^2 - 9}{6x - 9}$ _____ | 24. $\frac{16m^2 - 49}{12m - 21}$ _____ |

