NAME

Module 11 Simplifying Algebraic Expressions with Polynomials

Lesson 6 Dividing Polynomials by Monomials

additional practice

Simplify.

1. $\frac{12m^3}{3}$ **$4m^3$**

2. $\frac{-16a^2}{20}$ **$\frac{-4a^2}{5}$**

3. $\frac{5q^4}{q^2}$ **$5q^2$**

4. $\frac{15a^6}{3a^3}$ **$5a^3$**

5. $\frac{-72x^9}{40x^5}$ **$\frac{-9x^4}{5}$**

6. $\frac{-15ab^3}{5ab}$ **$-3b^2$**

7. $\frac{32a^2b^2c}{28ab}$ **$\frac{8abc}{7}$**

8. $\frac{35d^3f^6g}{7d^4f^4g^2}$ **$\frac{5f^2}{dg}$**

9. $\frac{49x^2y^6z}{14x^5y^8}$ **$\frac{7z}{2x^3y^2}$**

10. $\frac{13x^9z^6}{7y^9z^6}$ **$\frac{13x^9}{7y^9}$**

11. $\frac{7p^5q^2r^4}{7p^5q^2r^4}$ **1**

12. $\frac{14z + 6}{2}$ **$7z + 3$**

13. $\frac{20m^5 + 10}{25}$ **$\frac{4m^5}{5} + \frac{2}{5}$ or $\frac{4m^5 + 2}{5}$**

14. $\frac{21g + 14}{5}$ **In simplest form**

15. $\frac{22a^7 + 33a^3}{11a}$ **$2a^6 + 3a^2$**

16. $\frac{(3n^3 + 3) + (3n^3 - 3)}{6n^3}$ **1**

17. $\frac{4z^8 - 12z^6 + 16z^4}{4z}$ **$z^7 - 3z^5 + 4z^3$**

18. $\frac{9bq^8 + 18bq^5 + 9bq}{9bq}$ **$q^7 + 2q^4 + 1$**

19. $\frac{2c^7 - 18c^3 + 9c}{9c}$ **$\frac{2c^6}{9} - 2c^2 + 1$**

20. $\frac{2x^3y^2 - 7x^3 + 8y^3}{14x^3y^2}$ **$\frac{1}{7} - \frac{1}{2y^2} + \frac{4y}{7x^3}$**

21. $\frac{4f^4h^5 + 8f^5 - 2h^2}{2f^3h^2}$ **$2fh^3 + \frac{4f^2}{h^2} - \frac{1}{f^3}$**

22. $\frac{7m^7n^3 - 42m^7n^6 - 21m^4n^3}{21m^4n^3}$ **$\frac{m^3}{3} - 2m^3n^3 - 1$**