

NAME _____

DATE _____

Module 11 Simplifying Algebraic Expressions
with Polynomials

Lesson 7 Dividing Polynomials Using Long
Division



**additional
practice**

Use long division to divide these polynomials. Assume that no divisor is equal to zero.

1. $3f - 1 \overline{)3f^2 - 7f + 2}$

2. $a + 2 \overline{)2a^2 + 7a + 6}$

3. $5c + 2 \overline{)5c^2 + 7c + 11}$

4. $4w - 7 \overline{)4w^2 + 5w - 29}$

5. $(p^2 + 5p + 4) \div (p + 1)$

6. $(g^2 - 9g + 14) \div (g - 7)$

7. $(k^2 + 9k - 5) \div (k - 1)$

8. $(x^2 + 4x - 17) \div (x + 6)$

9. $(-8c + 3c^2 + 4) \div (3c - 2)$

10. $(21 - 26s + 8s^2) \div (4s - 7)$

11. $(7 + a^2 + 6a) \div (a + 5)$

12. $(12f^2 + 23f + 13) \div (2 + 3f)$

13. $(6x^3 - 11x^2 - 7x + 2) \div (2x^2 - 5x + 1)$

14. $(2r^3 + 17r^2 + 6r - 60) \div (r^2 + 6r - 12)$

15. $(x^2 - 25) \div (x + 5)$

16. $(a^2 - 81) \div (9 + a)$

17. $(a^3 - 27) \div (a - 3)$

18. $(8c^3 + 27) \div (2c + 3)$

19. $(y^3 + 64) \div (y - 2)$

20. $(10x^4 + 3x^2 + 6x^3) \div (2x^2 + 1)$



