

Dividing Polynomials 2 – Long Division

Simplify each of the following using long division.

- $(2x^3 + 6x^2 + 7x + 6) \div (x + 2)$
- $(x^4 + 2x^3 - 31x^2 - 18x - 10) \div (x - 5)$
- $(x^5 - 4x^4 + 10x^2 - 7x + 6) \div (x - 2)$
- $(3x^3 - 8x^2 - 17x + 14) \div (3x - 2)$
- $(12x^4 - 7x^3 - 6x^2 + 23x - 35) \div (4x - 5)$
- $(8x^3 - 32x^2 + 24x - 35) \div (2x - 7)$
- $(9x^5 + 3x^4 - 12x^3 - 6x^2 + 13x + 28) \div (3x + 4)$
- $(10x^5 + 5x^4 + 4x^2 - 12x - 7) \div (2x + 1)$
- $(3x^5 - 2x^4 - 5x^2 - 7x - 8) \div (x - 2)$
- $(3x^4 - 2x^2 + 2x - 7) \div (x + 1)$
- $(x^6 - 4x^5 - 25x^4 + 44x^3 + 98x^2 - 189x + 63) / (x^2 - 7x + 3)$
- $(x^5 + 4x^4 + 6x^3 - 8x^2 - 21x + 4) / (x^2 + 2x - 7)$
- $(5x^5 - 4x^4 + 3x^3 - 2x^2 + x - 1) \div (x + 1)$
- $(4x^4 + 2x^2 - 4x + 8) \div (2x + 2)$
- $(9x^3 + 12x^2 - 3x + 15) \div (3x^2 + 6)$
- $(x^5 - 4x^4 + 3x^3 + 11x^2 - x + 10) \div (x + 4)$
- $(x^6 - 5x^5 + 4x^4 - 20x^3 - x^2 + 5x + 2) \div (x - 5)$
- $(x^7 - 2x^6 + 6x^5 + 3x^4 + 8x^3 + 21x^2 + 14) / (x^2 + 2)$
- $(2x^3 + 8x^2 - 3x + 4) \div (2x^2 + 3)$
- $(x^5 - x^4 + 3x^3 - x^2 + 6x + 3) / (x^2 - x + 2)$
- $(x^6 + 11x^5 + 23x^4 - 26x^3 + 6x^2 + x - 3) \div (x^2 + 7x - 3)$
- $(3x^5 + 4x^4 + 3x^2 + x - 7) \div (x^2 - 2)$
- $(5x^5 + 15\frac{2}{3}x^4 - 5x^3 - 19x^2 + 6x + 7) / (x + 3)$
- $(\frac{2}{3}x^5 - 5\frac{13}{24}x^4 + 6\frac{7}{8}x^3 - 5\frac{3}{4}x^2 + 3\frac{1}{2}x + 4) / (x - 7)$
- $(x^6 - 2\frac{1}{2}x^5 - 6x^4 + 3\frac{1}{2}x^3 + 2x^2 - 5x + 2) \div (x - \frac{1}{2})$
- $(2x^5 - x^4 - 6\frac{2}{3}x^3 - \frac{1}{5}x^2 + 1\frac{2}{5}x - 4) / (2x + 3)$
- $(3x^7 + 8x^6 - 19x^5 - 32x^4 + 30x^3 - x^2 - x + 7) \div (x^2 - 4)$