

Basic Division of Polynomials

Divide by breaking up into individual fractions and simplifying:

$$1. \frac{36x^3 - 16x^2}{8}$$

$$2. \frac{12x^5 + 18x^3 - 24x}{6}$$

$$3. \frac{x^4 + 5x^3 - 6x^2}{x}$$

$$4. \frac{10x^6 - 5x^4 - 25x^2}{15x}$$

$$5. \frac{30y^2 + 20y^3 - 50y}{-10y}$$

$$6. \frac{32xy^2 + 42x^3y^3 - 52x^2y^5}{4x^2y}$$

$$7. \frac{8r^2s^2 + 10rs^3 - 6r^2s}{-2rs}$$

$$8. \frac{7x^3y^2 - 21x^2y + 35x^3y^4}{7x^2y^3}$$

$$9. (25x^7 - 20x^4 + 15x^2) \div (-5x^2)$$

Divide by factoring (if necessary) and canceling.

$$10. \frac{(x+2)(x+4)}{x+4}$$

$$11. \frac{(x-5)(2x-1)}{x-5}$$

$$12. \frac{(x-9)(x+1)}{(x-4)(x-9)}$$

$$13. \frac{x^2 - 16x + 64}{x-8}$$

$$13. \frac{x^2 - 81}{x+9}$$

$$14. \frac{x^2 + 8x + 15}{x^2 + 4x + 3}$$

$$15. \frac{x^2 - 5x - 14}{x^2 - 2x - 35}$$