

Dividing Polynomials Answer Key

A Polynomial Divided Against Itself Cannot Stand

Find each quotient.

1. $\frac{6x^4+6x^3+8x^2}{2x^2}$

$$3x^2 + 3x + 4$$

2. $\frac{8x^2y+4xy^2+12x^2y^2}{4xy}$

$$2x + 2y + 3xy$$

3. $\frac{72x^6+63x^4+54x^3}{9x^2}$

$$8x^4 + 7x^2 + 6x$$

4. $\frac{36y+54y^4}{18y}$

$$12 + 3y^3$$

5. $\frac{64y^5+40y^4}{16y^2}$

$$y^3 + \frac{5}{8}y^2$$

6. $\frac{3x^2-11x-4}{3x+1}$

$$x - 4$$

7. $\frac{2x^3-2x^2+6x-6}{x-1}$

$$2x^2 + 6$$

8. $\frac{2x^3-5x^2-7x}{2x-7}$

$$\frac{(2x^3-7x^2)+(2x^2-7x)}{2x-7} = x^2 + x$$

9. $\frac{15x-30}{6-3x}$

$$-5$$

10. $\frac{a^3+ab^2+a^2b+b^3}{a+b}$

$$a^2 + b^2$$

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