

**Polynomials****Advanced****Divide**

1. long division  $\frac{x^4 - 16}{x - 2}$

2. long division  $\frac{x^3 - 9}{x - 3}$

3. long division  $\frac{x^5 + 1}{x + 1}$

4. long division  $\frac{2 - 4x^2}{x - 2}$

5. long division  $\frac{(x^2 + 2x + 1)}{(x + 1)}$

6. long division  $\frac{x^2 + x + 1}{x - 1}$

7. long division  $\frac{x^3}{x^2 + 2}$

8. long division  $\frac{x^3 - 64}{x - 4}$

9. long division  $\frac{4x^4 + 3x^3 + x}{x^2 - 1}$

10. long division  $\frac{x^3 + 5x^2 + 11x + 4}{x + 2}$

**Answers****Polynomials****Advanced****Divide**

1.  $x^3 + 2x^2 + 4x + 8$

2.  $x^2 + 3x + 9 + \frac{18}{x - 3}$

3.  $x^4 - x^3 + x^2 - x + 1$

4.  $-4x - 8 - \frac{14}{x - 2}$

5.  $x + 1$

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

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

8.  $x^2 + 4x + 16$

9.  $4x^2 + 3x + 4 + \frac{4}{x - 1}$

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