

Synthetic Division Practice Problems

Name: _____

Period: _____ Date: _____

Divide:

1) Divide using Synthetic Division:

$$\frac{-2x^5 + 2x^4 + 2x^3 - 3x^2 - 4x - 1}{x - 3}$$

2) Divide using Synthetic Division:

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

3) Divide using Synthetic Division:

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

4) Divide using Synthetic Division:

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

5) Divide using Synthetic Division:

$$\frac{-5x^4 + 5x^3 + 3x - 1}{x - 1}$$

6) Divide using Synthetic Division:

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

7) Divide using Synthetic Division:

$$\frac{-5x^5 - 2x^4 - 3x^3 + x^2 - 2x - 1}{x + 2}$$

8) Divide using Synthetic Division:

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

9) Divide using Synthetic Division:

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

10) Divide using Synthetic Division:

$$\frac{3x^6 - x^5 + 2x^4 + 3x^3 + x^2 - 2x - 1}{x + 1}$$