

Dividing Polynomials; Synthetic
Division

1. Divide and simplify:
(Similar to p.350 #18)

$$\frac{5x^4 - 15x^2}{5x^2}$$

2. Divide and simplify:
(Similar to p.350 #24)

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

3. Divide using long division:
(Similar to p.350 #26)

$$\frac{x^2 - 10x + 16}{x - 2}$$

4. Divide using long division:
(Similar to p.350 #32)

$$\frac{x^3 - x^2 - 11x + 3}{x + 3}$$

5. Divide using long division:
(Similar to p.350 #??)

$$\frac{x^2 - 9x - 1}{x - 2}$$

6. Divide using long division:
(Similar to p.350 #42)

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

7. Divide using synthetic division:
(Similar to p.350 #44)

$$\frac{x^2 - 6x + 8}{x - 2}$$

8. Divide using synthetic division:
(Similar to p.350 #50)

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

9. Divide using synthetic division:
(Similar to p.350 #54)

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