

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Per: \_\_\_\_\_

### Dividing Polynomials Pre-Assessment

1.  $(18x^4 - 10x^2 + 6x^7) \div (2x^2)$

$$9x^2 - 5x + 3^5$$

2.  $(x^2 + 7x + 12) \div (x + 3)$

$$\begin{array}{r} x^2 + 7x + 12 \\ \hline \end{array}$$

$$x + 3$$

$$x + 7 + \frac{12}{x}$$

$$\frac{x}{3} + \frac{7x}{3} + 4$$

3.  $(3x^3 + 4x^2 - 3x + 7) \div (x + 2)$

4.  $(9x^2 + 8) \div (3x + 2)$

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**Divide.**

✓ 1.  $(3p^3 - 27p^2) \div 3p^2$

$p - 9$

✓ 2.  $(3c^2 - 5c - 2) \div (3c + 1)$

$$\begin{array}{r} c - 2 \\ 3c + 1 \overline{) 3c^2 - 5c - 2} \\ \underline{3c^2 + 1c} \phantom{- 2} \\ -6c - 2 \\ \underline{-6c - 2} \\ 0 \end{array}$$

$c - 2$

✓ 3.  $(x^3 + 3x^2 - 2x + 6) \div (x - 1)$

$$\begin{array}{r} x^2 + 4x + 2 + \frac{8}{x-1} \\ x - 1 \overline{) x^3 + 3x^2 - 2x + 6} \\ \underline{x^3 - x^2} \phantom{- 2x + 6} \\ 4x^2 - 2x + 6 \\ \underline{4x^2 - 4x} \phantom{+ 6} \\ 2x + 6 \\ \underline{2x - 2} \\ 8 \end{array}$$

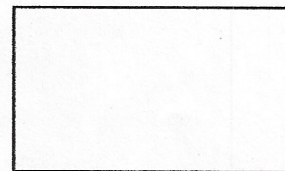
✓ 4.  $(27y^3 + 64) \div (3y + 4)$

$$\begin{array}{r} 9y^2 - 12y + 16 \\ 3y + 4 \overline{) 27y^3 + 0y^2 + 0y + 64} \\ \underline{27y^3 + 36y^2} \phantom{+ 0y + 64} \\ -36y^2 + 0y + 64 \\ \underline{-36y^2 - 48y} \phantom{+ 64} \\ 48y + 64 \\ \underline{48y + 64} \\ 0 \end{array}$$

$9y^2 - 12y + 16$

✓ 5. The area of the rectangle is  $x^4 - 9x^3 - 7x^2 - 8x + 2$ . The length is given. What is the width?

$$\begin{array}{r} x^2 - 10x + 2 \\ x^2 + x + 1 \overline{) x^4 - 9x^3 - 7x^2 - 8x + 2} \\ \underline{x^4 + x^3 + x^2} \phantom{- 8x + 2} \\ -10x^3 - 8x^2 - 8x + 2 \\ \underline{-10x^3 - 10x^2 - 10x} \phantom{+ 2} \\ 2x^2 + 2x + 2 \\ \underline{2x^2 + 2x + 2} \\ 0 \end{array}$$



$x^2 + x + 1$

$W = x^2 - 10x + 2$

$$\begin{array}{r} 2x^2 + 2x + 2 \\ \underline{2x^2 + 2x + 2} \\ 0 \end{array}$$