

Name: _____ Date: _____ Per: _____

Dividing Polynomials Pre-Assessment

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

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

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

$$x + 7x + 4$$

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

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

$$3x + 4$$

Divide.

✓ 1. $(3p^3 - 27p^2) \div 3p^2$

$$\begin{array}{r} p+9 \\ 3p^2 \overline{) 3p^3 - 27p^2} \\ \underline{-3p^3} \\ 0 \\ -27p^2 \\ \underline{+27p^2} \\ 0 \end{array}$$

$(p+9)$

✓ 2. $(3c^2 - 5c - 2) \div (3c + 1)$

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

$(c+2)$

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

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

$x^2 + 4x + 2 + \frac{8}{x-1}$

-3 ✓ 4. $(27y^3 + 64) \div (3y + 4)$

$$\begin{array}{r} 9y^2 \\ 3y+4 \overline{) 27y^3 + 64} \\ \underline{-27y^3 + 36} \\ 28 \end{array}$$

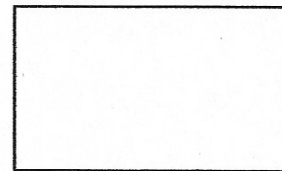
$9y^2 + \frac{28}{3y+4}$

you forgot the missing terms (0y² and 0y)

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

$x^2 - 10x + 2$

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



$x^2 + x + 1$