

Name: 

Date: 3/3/20

Per: 8

Dividing Polynomials Pre-Assessment

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

$$\frac{2x^2 \quad 2x^2 \quad 2x^2}{18x^4 - 10x^2 + 6x^7}$$

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

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

$$x^2 + 7x + 12$$

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

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

?

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

$$3x^2 + 4$$

Divide.

✓1. $(3p^3 - 27p^2) \div 3p^2$

$$\begin{array}{r} 3p^3 - 27p^2 \\ \underline{3p^2 \quad 3p^2} \end{array}$$

$(p-9)$

✓2. $(3c^2 - 5c - 2) \div (3c + 1)$

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

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

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

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

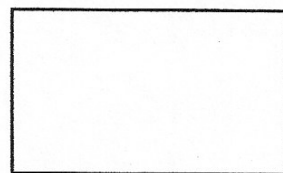
✓4. $(27y^3 + 64) \div (3y + 4)$

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

$9y^2 - 12y + 16$

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

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



$x^2 + x + 1$

$x^2 - 10x + 2$