

Date: 03-03-20 Per: \_\_\_\_\_

### Dividing Polynomials Pre-Assessment

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

$$\frac{9x^2 - 5x + 3x^5}{1}$$

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

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

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

$$\frac{3x^2 + 4x - 3 + 7x^7}{2}$$

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

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### Divide.

✓ 1.  $(3p^3 - 27p^2) \div 3p^2$

$3p^2$

$p - 9$

✓ 2.  $(3c^2 - 5c - 2) \div (3c + 1)$

$3c+1 \overline{) 3c^2 - 5c - 2}$   
 $-(3c^2 + c)$

$c - 2$

$-6c - 2$   
 $-(-6c - 2)$   
0

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

$x^2 + 4x + 2$

$x-1 \overline{) x^3 + 3x^2 - 2x + 6}$   
 $-(x^3 - x^2)$

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

$4x^2 - 2x$   
 $-(4x^2 + 4x)$

$2x + 6$   
 $-(2x - 2)$   
8

✓ 4.  $(27y^3 + 64) \div (3y + 4)$

$\frac{16}{48}$      $\frac{16}{4}$   
 $\frac{4}{64}$

$3y+4 \overline{) 27y^3 + 0y^2 + 0y + 64}$   
 $-(27y^3 + 36y^2)$

$9y^2 - 12y + 16$

$-36y^2 + 0y$   
 $-(-36y^2 - 48y)$   
 $48y + 64$   
 $-(48y + 64)$   
0

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

$x^2 + x + 1 \overline{) x^4 - 9x^3 - 7x^2 - 8x + 2}$

$x^2 - 10x + 2$

$-(x^4 + x^3 + x)$   
 $-10x^3 - 8x^2 - 8x$   
 $-(-10x^3 - 10x^2 - 10x)$   
0     $2x^2 + 2x + 2$

$x^2 + x + 1$   
 $2x^2 + 2x + 2$   
 $-(2x^2 + 2x + 2)$   
0