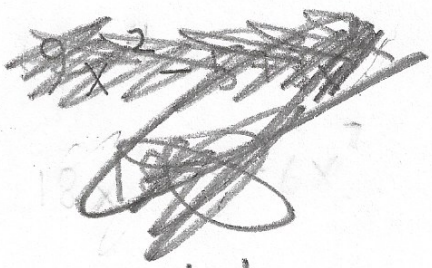
Name: [redacted] Date: _____ Per: 5

Dividing Polynomials Pre-Assessment

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



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

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

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

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

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Divide.

1. $(3p^3 - 27p^2) \div 3p^2$

$\frac{3p^3}{3p^2} - \frac{27p^2}{3p^2} = \frac{p}{1} - \frac{9}{1}$

$p - 9$

2. $(3c^2 - 5c - 2) \div (3c + 1)$

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

$-(3c^2+c)$

$0-6c-2$

$-(-6c-2)$

$0+0$

0

$c - 2$

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

$x-1 \overline{)x^3+3x^2-2x+6}$ $\quad x^2+4x+2 \ \frac{8}{x-1}$

$+(-x^3+x^2)$ ↓

$0+4x^2-2x$

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

$0+2x+6$

$+(-2x+2)$

$0+8$

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

4. $(27y^3 + 64) \div (3y + 4)$

$3y+4 \overline{)27y^3+0^2+0+64}$ $\quad 9y^2-12y+16$

$-(27y^3+36y^2)$

$0-36y^2+0$

$-(-36y^2-48y)$

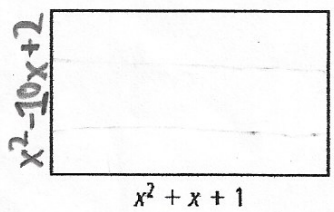
$0+48y+64$

$-(48y+64)$

0

$9y^2-12y+16$

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



$x^2+x+1 \overline{)x^4-9x^3-7x^2-8x+2}$ $\quad x^2-10x+2$

$-(x^4+x^3+x^2)$ →

$0-10x^3-8x^2-8x$

$-(-10x^3-10x^2-10x)$

$0+2x^2+2x+2$

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

$0+0+0$

0

$x^2 - 10x + 2$