

Algebra 2 Bellwork Thursday, January 7, 2016

Find each quotient. State remainders any way you wish.

1. $\frac{4x^3 - 9x^2 + 7x - 10}{x - 2} =$

2. $\frac{6x^3 - 23x^2 - 20}{x + 4} =$

3. $\frac{6x^3 + 9x^2 + 14x + 24}{2x + 3} =$

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1. $\frac{4x^3 - 9x^2 + 7x - 10}{x - 2} =$

$4x^2 - x + 5$

$$\begin{array}{r} x-2 \overline{) 4x^3 - 9x^2 + 7x - 10} \\ \underline{4x^3 - 8x^2} \\ -x^2 + 7x \\ \underline{-x^2 + 2x} \\ 5x - 10 \\ \underline{-5x - 10} \\ 0 \end{array}$$

3. $\frac{6x^3 + 9x^2 + 14x + 24}{2x + 3} =$

$3x^2 + 7 \quad R=3$

$$\begin{array}{r} 2x+3 \overline{) 6x^3 + 9x^2 + 14x + 24} \\ \underline{6x^3 + 9x^2} \\ 0 + 14x + 24 \\ \underline{-14x + 21} \\ 3 \end{array}$$

ANSWERS

2. $\frac{6x^3 - 23x^2 - 20}{x + 4} =$

$6x^2 - 47x + 188 \quad R = -77$

$$\begin{array}{r} x+4 \overline{) 6x^3 - 23x^2 + 0x - 20} \\ \underline{6x^3 + 24x^2} \\ -47x^2 + 0x \\ \underline{-47x^2 - 188x} \\ 188x - 20 \\ \underline{-188x + 752} \\ -772 \end{array}$$