March 28, 2012

Alg2

Get out yesterday's WS

6)

$$x^2 + 6x - 10 - \frac{2}{x-2}$$

$$x-2 \overline{\big)\, x^3 + 4x^2 - 22x + 18}$$

$$-\ \cancel{x^3} + 2x^2$$

$$6x^2 - 22x$$

$$-\ \cancel{6x^2} + 12x$$

$$-10x + 18$$

$$\pm 10x \mp 20$$

$$-2$$

2	1	4	-22	18
		2	12	-20
	1	6	-10	-2

3/28 - Synthetic Division

$$(6a^3 - 16a^2 + 6a + 10) \div (a - 1)$$

What makes $= 0$?

1	6	−16	6	10
	↓	6	−10	−4
	6	−10	−4	6

$$6a^2 - 10a - 4 + \frac{6}{a-1}$$

$$\left(9v^3 + 32v^2 + 23v + 15\right) \div \left(v + 3\right)$$

-3	9	32	23	15
		-27	-15	-24
	9	5	8	-9

$$9v^2 + 5v + 8 - \frac{9}{v+3}$$

$$\left(x^3 - 13x - 26\right) \div \left(x + 2\right)$$

-2	1	0	-13	-26
		-2	4	18
	1	-2	-9	-8

$$x^2 - 2x - 9 - \frac{8}{x+2}$$

$$\left(m^3 - 35m + 4\right) \div \left(m - 6\right)$$

$$(18b^3 + 12b^2 - 4b + 1) \div (3b + 1)$$

$-\frac{1}{3}$	18	12	−4	1
		−6	−2	2
	$\frac{18}{3}$	$\frac{6}{3}$	$\frac{-6}{3}$	3

because of the 3 here

$$6b^2 + 2b - 2 + \frac{3}{3b+1}$$

$$\left(5x^3 + 38x^2 + 24x - 19\right) \div \left(5x - 2\right)$$

$$\begin{array}{r|rrrr}
\frac{2}{5} & 5 & 38 & 24 & -19 \\
 & & 2 & 16 & 16 \\
\hline
 & 5 & 40 & 40 & -3 \\
 & \frac{5}{5} & \frac{40}{5} & \frac{40}{5} &
\end{array}$$

$$x^2 + 8x + 8 - \frac{3}{5x-2}$$

Homework

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Due