

April 4, 2016

$$p(x) = 8x^4 - 22x^3 + 4x^2 - 2x + 8$$

$$d(x) = 2x - 6$$

x^4	x^3	x^2	x^1	x^0
$8x^4$	$-22x^3$	$+4x^2$	$-2x$	$+8$
$-8x^4$	$+24x^3$			
	$+2x^3$	$+4x^2$		
	$-2x^3$	$+6x^2$		
		$+10x^2$	$+2x$	
		$-10x^2$	$+30x$	
			$-28x$	$+8$
			$+28x$	$+4$
				92

$q(x) = 4x^3 + x^2 + 5x + 14$

$$p(x) = [(2x-6) \cdot (4x^3 + x^2 + 5x + 14)] + 92$$

Apr 4-10:58 AM

$$\frac{p(x)}{d(x)} = \frac{2x^3 - 7x^2 + 0x + 5}{(x-3)}$$

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Synthetic Division

$$\frac{p(x)}{d(x)} = \frac{2x^3 - 7x^2 + 0x + 5}{1x - 3}$$

$+3$	2	-7	0	5
	6	-3	-9	
	2	-1	-3	-4

$q(x) = 2x^2 - x - 3$

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

Apr 4-11:31 AM

$$\frac{3x^5 + 5x^4 - 4x^3 + 0x^2 + 7x + 3}{x+2}$$

-2	3	5	-4	0	7	3
	-6	2	4	-8	2	
	3	-1	-2	4	-1	5

$3x^4 - x^3 - 2x^2 + 4x - 1$

$$\frac{5}{x+2}$$

Apr 4-11:42 AM