

Dividing Polynomials - Box Method

Divide the following by box method.

$$1) \frac{2g^4 - 18g^2 + 32g - 96}{2g^2 - 2g + 8} =$$

$2g^2$			
$-2g$			
8			

$$2) \frac{s^4 + 3s^3 + s^2 + 20s + 30}{s^2 + 5s + 5} =$$

s^2			
$5s$			

$$3) \frac{b^4 - 4b^3 - 5b^2 - 6b - 1}{b^2 - 5b - 1} =$$

b^2		
$-5b$		
-1		

$$\frac{24h + 12}{3} =$$

$$5) \frac{4t^4 + 14t^3 + 32t^2 + 37t + 10}{2t^2 + 4t + 3} =$$

$2t^2$			
$4t$			
3			

$$\frac{7y - 10}{5} =$$

y^2			
$-4y$			
-5			

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Dividing Polynomials - Box Method

Divide the following by box method.

$$1) \frac{2g^4 - 18g^2 + 32g - 96}{2g^2 - 2g + 8} = g^2 + g - 12$$

	g^2	g	-12
$2g^2$	$2g^4$	$2g^3$	$-24g^2$
$-2g$	$-2g^3$	$-2g^2$	$24g$
8	$8g^2$		

$$2) \frac{s^4 + 3s^3 + s^2 + 20s + 30}{s^2 + 5s + 5} = s^2 - 2s + 6$$

	s^2	$-2s$	6
s^2	s^4	$-2s^3$	$6s^2$
$5s$	$5s^3$	$-10s^2$	$30s$
		$-10s$	30

$$3) \frac{b^4 - 4b^3 - 5b^2 - 6b - 1}{b^2 - 5b - 1}$$

	b^2	
b^2	b^4	
$-5b$	$-5b^3$	
-1	$-b^2$	

$$\frac{24h + 12}{3} = 3h^2 + 4h - 4$$

	$4h$	-4
	$8h^3$	$-8h^2$
	$12h^2$	$-12h$
	$-12h$	12

$$5) \frac{4t^4 + 14t^3 + 32t^2 + 37t + 10}{2t^2 + 4t + 3}$$

	$2t^2$	$3t$	7
$2t^2$	$4t^4$	$6t^3$	$14t^2$
$4t$	$8t^3$	$12t^2$	$28t$
3	$6t^2$	$9t$	21

$$\frac{7y - 10}{5} = 7y^2 - 3y + 2$$

	$7y^2$	$-3y$	2
y^2	$7y^4$	$-3y^3$	$2y^2$
$-4y$	$-28y^3$	$12y^2$	$-8y$
-5	$-35y^2$	$15y$	-10

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