



Synthetic Division Setup - Any Product Row Value



1 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^3 - 3x^2 - 16x + 48}{(x + 4)}$$

-4	1	-3	-16	48
		?		
	1			

A	B	C
12	0	11
D	E	F
8	3	-4

2 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^5 - x^4 - 16x^3 + 4x^2 + 48x}{(x + 1)}$$

-1	1	-1	-16	4	48	0
		?				
	1					

A	B	C
11	9	-1
D	E	F
6	10	3

3 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^4 - 4x^3 - 3x^2 + 10x + 8}{(x - 2)}$$

2	1	-4	-3	10	8
		2	-4	?	
	1	-2	-7		

A	B	C
8	-14	21
D	E	F
16	17	19

4 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^4 + 2x^3 - 11x^2 - 12x}{(x + 2)}$$

-2	1	2	-11	-12	0
		?			
	1				

A	B	C
7	9	8
D	E	F
4	2	-2

5 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^3 + 9x^2 + 26x + 24}{(x + 4)}$$

-4	1	9	26	24
		-4	?	
	1	5		

A	B	C
18	11	24
D	E	F
13	-20	20

6 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^3 - x^2 - 14x + 24}{(x + 2)}$$

-2	1	-1	-14	24
		-2	?	
	1	-3		

A	B	C
3	6	9
D	E	F
10	8	12

7 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

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

2	1	5	2	-8
		2	14	?
	1	7	16	

A	B	C
5	23	14
D	E	F
11	2	32

8 Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the middle row?

$$\frac{x^4 - 3x^3 - 2x^2 + 12x - 8}{(x - 1)}$$

1	1	-3	-2	12	-8
		?			
	1				

A	B	C
5	9	7
D	E	F
8	6	1