



Synthetic Division Setup - Any Quotient Row Value

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

$$\frac{x^3 + 7x^2 + 8x - 16}{(x - 1)}$$

1	1	7	8	-16
		1	8	16
	1	8	16	?

A	B	C
2	4	5
D	E	F
9	0	6

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

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

-3	1	9	26	24
		-3		
	1	?		

A	B	C
3	6	11
D	E	F
10	15	12

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

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

-2	1	1	-16	-4	48
		-2			
	1	?			

A	B	C
11	3	1
D	E	F
-1	4	7

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

$$\frac{x^4 - x^3 - 6x^2 + 4x + 8}{(x - 2)}$$

2	1	-1	-6	4	8
		2			
	1	?			

A	B	C
6	2	4
D	E	F
5	9	1

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

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

-4	1	-1	-16	16
		-4		
	1	?		

A	B	C
3	7	15
D	E	F
-5	0	4

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

$$\frac{x^4 + 10x^3 + 37x^2 + 60x + 36}{(x + 1)}$$

-1	1	10	37	60	36
		-1			
	1	?			

A	B	C
17	11	13
D	E	F
2	12	9

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

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

-3	1	-1	-12	0
		-3		
	1	?		

A	B	C
10	13	2
D	E	F
-4	14	3

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

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

3	1	1	-10	8
		3	12	
	1	4	?	

A	B	C
3	8	10
D	E	F
6	5	2