



Synthetic Division Setup - Single Coefficient, In Order

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

$$\frac{x^3 - 3x^2}{(x - 1)}$$

1	?	-3	0	0

A	B	C
9	7	2
D	E	F
1	6	4

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

$$\frac{x^4 - 5x^3 + 20x - 16}{(x - 2)}$$

2	1	-5	0	?	-16

A	B	C
30	20	0
D	E	F
18	38	10

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

$$\frac{x^3 - 7x^2 + 15x - 9}{(x - 1)}$$

1	1	?	15	-9

A	B	C
6	-7	16
D	E	F
17	3	2

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

$$\frac{x^3 + 7x^2 + 14x + 8}{(x + 1)}$$

-1	1	?	14	8

A	B	C
7	11	10
D	E	F
1	14	15

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

$$\frac{x^4 + 2x^3 - x^2 - 2x}{(x - 0)}$$

0	1	2	-1	-2	?

A	B	C
2	7	0
D	E	F
3	1	6

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

$$\frac{x^3 - 7x^2 + 15x - 9}{(x - 1)}$$

1	1	-7	15	?

A	B	C
-9	7	4
D	E	F
9	16	1

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

$$\frac{x^5 + 5x^4 - 7x^3 - 53x^2 - 18x + 72}{(x - 1)}$$

1	?	5	-7	-53	-18	72

A	B	C
4	0	1
D	E	F
5	3	7

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

$$\frac{x^3 + 4x^2 + x - 6}{(x - 1)}$$

1	1	4	1	?

A	B	C
-6	4	6
D	E	F
2	10	3