



Synthetic Division Setup - All Coefficients, In Order

1 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

$$\frac{x^3 - 7x^2 + 16x - 12}{(x - 2)}$$

2	?	?	?	?

A	1	-7	16	-12
B	-12	16	-7	1
C	2	-7	16	-12
D	1	-7	16	12

2 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

$$\frac{x^5 - 3x^4 - 15x^3 + 35x^2 + 54x - 72}{(x - 1)}$$

1	?	?	?	?	?	?

A	-72	54	35	-15	-3	1
B	2	-3	-15	35	54	-72
C	1	-3	-15	35	54	-72
D	1	-3	-15	35	54	72

3 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

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

-4	?	?	?	?

A	2	1	-5	3
B	3	-5	1	1
C	1	1	-5	3
D	1	1	-5	-3

4 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

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

-1	?	?	?	?

A	0	-2	-1	1
B	2	-1	-2	0
C	1	-1	-2	0

5 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

$$\frac{x^3 + 5x^2 - 2x - 24}{(x - 3)}$$

3	?	?	?	?

A	2	5	-2	-24
B	1	5	-2	-24
C	-24	-2	5	1
D	1	5	-2	24

6 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

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

2	?	?	?	?

A	-8	-6	3	1
B	1	3	-6	-8
C	1	3	-6	8
D	2	3	-6	-8

7 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

$$\frac{x^4 + 3x^3 - 3x^2 - 11x - 6}{(x - 2)}$$

2	?	?	?	?	?

A	1	3	-3	-11	6
B	-6	-11	-3	3	1
C	2	3	-3	-11	-6
D	1	3	-3	-11	-6

8 Using synthetic division to divide this polynomial by this binomial, which set of values goes in the top row of the synthetic division grid?

$$\frac{x^5 + 7x^4 - 68x^2 - 32x + 192}{(x - 1)}$$

1	?	?	?	?	?	?

A	1	7	0	-68	-32	192
B	192	-32	-68	0	7	1
C	2	7	0	-68	-32	192
D	1	7	0	-68	-32	192