



Synthetic Division Setup - Any Quotient Row Value (with Hint)

1

$$\frac{x^3 - x^2 - 6x}{(x - 0)}$$

0	1	-1	-6	0
		0		
	1	?		

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
3	7

2

$$\frac{x^3 + x^2 - 12x}{(x - 0)}$$

0	1	1	-12	0
		0	0	
	1	1	?	

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
8	7

3

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

3	1	7	8	-16
		3	30	
	1	10	?	

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
56	11

4

$$\frac{x^4 + 2x^3 - 9x^2 - 18x}{(x - 1)}$$

1	1	2	-9	-18	0
		1	3	-6	-24
	1	3	-6	-24	?

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
32	-24

5

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

-1	1	-5	4	0
		-1	6	-10
	1	-6	10	?

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
6	12

6

$$\frac{x^4 + 4x^3 - 12x^2 - 64x - 64}{(x + 2)}$$

-2	1	4	-12	-64	-64
		-2	-4		
	1	2	?		

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
15	-16

7

$$\frac{x^5 + 8x^4 + 7x^3 - 72x^2 - 144x}{(x - 0)}$$

0	1	8	7	-72	-144
		0			
	1	?			

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
8	6

8

$$\frac{x^3 - 7x - 6}{(x - 3)}$$

3	1	0	-7	-6
		3		
	1	?		

Using synthetic division to divide this polynomial by this binomial, which value goes in the highlighted box of the bottom row? Hint: Each bottom-row value is the sum of the two values in the column above it.

A	B
9	1