



## Synthetic Division Setup - First Quotient Value (with Hint)

1

$$\frac{x^5 - 4x^4 - 17x^3 + 68x^2 + 16x - 64}{(x - 1)}$$

1	1	-4	-17	68	16	-64
	?					

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
2	3

2

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

-3	1	3	-1	-3
	?			

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
3	1

3

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

3	1	7	16	12
	?			

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
1	4

4

$$\frac{x^4 - 2x^3 - 9x^2 + 2x + 8}{(x + 1)}$$

-1	1	-2	-9	2	8
	?				

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
8	6

5

$$\frac{x^5 + 8x^4 + 20x^3 + 10x^2 - 21x - 18}{(x - 0)}$$

0	1	8	20	10	-21	-18
	?					

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
7	5

6

$$\frac{x^4 + 8x^3 + 19x^2 + 12x}{(x + 1)}$$

-1	1	8	19	12	0
	?				

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
2	4

7

$$\frac{x^5 - x^4 - 18x^3 + 16x^2 + 32x}{(x + 1)}$$

-1	1	-1	-18	16	32	0
	?					

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
9	1

8

$$\frac{x^5 + 2x^4 - 16x^3 - 14x^2 + 63x - 36}{(x - 0)}$$

0	1	2	-16	-14	63	-36
	?					

Using synthetic division to divide this polynomial by this binomial, which value is brought down into the first box of the bottom row? Hint: The first bottom-row value is the first coefficient brought straight down.

A	B
6	1