



## Synthetic Division Setup - Full Setup, Random Order

1 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

$$\frac{24x - 23x^2 + 144 + x^4 - 2x^3}{(x-1)}$$

?	?	?	?	?	?

A	B	C
-1   1 -2 -23 24 144	-1   144 24 -23 -2 1	1   1 -2 -23 24 144
D		
1   144 24 -23 -2 1		

2 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

$$\frac{-18 + 21x - 8x^2 + x^3}{(x-2)}$$

?	?	?	?	?

A	B	C
2   1 -8 21 -18	2   -18 21 -8 1	-2   -18 21 -8 1
D		
-2   1 -8 21 -18		

3 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

$$\frac{-6 + x^3 - 7x}{(x+1)}$$

?	?	?	?	?

A	B	C
1   1 0 -7 -6	1   -6 -7 0 1	-1   -6 -7 0 1
D		
-1   1 0 -7 -6		

4 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

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

?	?	?	?	?

A	B	C
-3   1 0 -4 0	3   1 0 -4 0	3   0 -4 0 1
D		
-3   0 -4 0 1		

5 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

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

?	?	?	?	?

A	B	C
-4   1 3 -16 -48	4   1 3 -16 -48	-4   -48 -16 3 1
D		
4   -48 -16 3 1		

6 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

$$\frac{6 + x^3 - 2x^2 - 5x}{(x+3)}$$

?	?	?	?	?

A	B	C
3   6 -5 -2 1	3   1 -2 -5 6	-3   1 -2 -5 6
D		
-3   6 -5 -2 1		

7 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

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

?	?	?	?	?	?

A	B	C
2   0 0 4 4 1	-2   0 0 4 4 1	2   1 4 4 0 0
D		
-2   1 4 4 0 0		

8 Using synthetic division to divide this polynomial by this binomial, which divisor and set of coefficients correctly set up the synthetic division?

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

?	?	?	?	?

A	B	C
-2   1 -7 14 -8	-2   -8 14 -7 1	2   -8 14 -7 1
D		
2   1 -7 14 -8		