Name

Synthetic Division Setup - Final Polynomial from the Quotient

1 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

$\frac{x^3+8x^2+21x+18}{(x-1)}$

1	1	8	21	18
		1	9	30
	1	9	30	48

A $2x^2+9x+30+\frac{48}{(x-1)}$

B $x^2+9x+30-\frac{48}{(x-1)}$

C $x^3+9x^2+30x+48$

D $x^2+9x+30+\frac{48}{(x-1)}$

2 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

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

4	1	-1	-8	12
		4	12	16
	1	3	4	28

A $x^2+3x+4-\frac{28}{(x-4)}$

B $x^2+3x+4+\frac{28}{(x-4)}$

C $2x^2+3x+4+\frac{28}{(x-4)}$

D $x^3+3x^2+4x+28$

3 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

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

-4	1	-1	-16	16
		-4	20	-16
	1	-5	4	0

A x^3-5x^2+4x

B $2x^2-5x+4$

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

D x^2-5x+4

4 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

$\frac{x^4+x^3-11x^2-9x+18}{(x+2)}$

-2	1	1	-11	-9	18
		-2	2	18	-18
	1	-1	-9	9	0

A x^3-x^2-9x+9

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

C $x^4-x^3-9x^2+9x$

D $2x^3-x^2-9x+9$

5 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

$\frac{x^3-6x^2+8x}{(x-4)}$

4	1	-6	8	0
		4	-8	0
	1	-2	0	0

A x^3-2x^2

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

C $2x^2-2x$

D x^2-2x

6 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

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

-3	1	6	11	6
		-3	-9	-6
	1	3	2	0

A x^2+3x+2

B $2x^2+3x+2$

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

D x^3+3x^2+2x

7 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

$\frac{x^4+2x^3-12x^2-8x+32}{(x-1)}$

1	1	2	-12	-8	32
		1	3	-9	-17
	1	3	-9	-17	15

A $x^3+3x^2-9x-17+\frac{15}{(x-1)}$

B $x^4+3x^3-9x^2-17x+15$

C $2x^3+3x^2-9x-17+\frac{15}{(x-1)}$

D $x^3+3x^2-9x-17-\frac{15}{(x-1)}$

8 Using synthetic division to divide this polynomial by this binomial, what is the resulting quotient and remainder?

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

4	1	-5	4	0
		4	-4	0
	1	-1	0	0

A x^2-x

B $2x^2-x$

C x^3-x^2

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