$A = 2x^3 + 3x^2 - 17x - 30$

$A(-2) = 0$

	2	3	−17	−30
−2		−4	2	30
	2	−1	−15	0

$A = (x+2)\underbrace{(2x^2 - x - 15)}_{G} = (x+2) \times G$

$G(3) = 0$

	2	−1	−15
3		6	15
	2	5	0

$G = (x-3)(2x+5)$

$$\boxed{A = (x+2)(x-3)(2x+5)}$$

$B = 2x^3 - x^2 - 5x - 2$

$B(-1) = 0$

	2	−1	−5	−2
−1		−2	3	2
	2	−3	−2	0

$B = (x+1)\underbrace{(2x^2 - 3x - 2)}_{G} = (x+1) \times G$

$G(2) = 0$

	2	−3	−2
2		4	2
	2	1	0

$G = (x-2)(2x+1)$

$$\boxed{B = (x+1)(x-2)(2x+1)}$$

$C = 2x^3 + 5x^2 - 4x - 3$

$C(1) = 0$

	2	5	-4	-3
1		2	7	3
	2	7	3	0

$C = (x-1)\underbrace{(2x^2+7x+3)}_{G} = (x-1) \times G$

$G(-3) = 0$

	2	7	3
-3		-6	-3
	2	1	0

$G = (x+3)(2x+1)$

$$\boxed{C = (x-1)(x+3)(2x+1)}$$

$D = x^3 - 39x + 70$

$D(2) = 0$

	1	0	-39	70
2		2	4	-70
	1	2	-35	0

$D = (x-2)\underbrace{(x^2+2x-35)}_{G} = (x-2) \times G$

$G(5) = 0$

	1	2	-35
5		5	35
	1	7	0

$G = (x-5)(x+7)$

$$\boxed{D = (x-2)(x-5)(x+7)}$$

$$E = x^4 - 4x^3 - 2x^2 + 9x - 4$$

$E(4) = 0$

	1	−4	−2	9	−4
4		4	0	−8	4
	1	0	−2	1	0

$$E = (x-4)\underbrace{(x^3 - 2x^2 + 1)}_{G} = (x-4) \times G$$

$G(1) = 0$

	1	0	−2	1
1		1	1	−1
	1	1	−1	0

$$G = (x-1)(x^2 + x - 1)$$

$$\boxed{E = (x-4)(x-1)(x^2+x-1)}$$

$F = x^5 + 32$

$F(-2) = 0$

	1	0	0	0	0	32
-2		-2	4	-8	16	-32
	1	-2	4	-8	16	0

$$\boxed{F = (x+2)(x^4 - 2x^3 + 4x^2 - 8x + 16)}$$