

Adding Polynomials

✓ * Include the sign as part of the term.

✓ ① $(6a - 9) + (-3a + 12)$

$$\underline{6a} - \underline{9} - \underline{3a} + \underline{12}$$

$$\underline{6a} - \underline{3a} - \underline{9} + \underline{12}$$

$$\boxed{3a + 3}$$

$$6 - 3 = +3$$

$$-9 + 12 = 3$$

✓ ② $(-3x^2 + 7x - 4) + (6x^2 + 9)$

$$\underline{-3x^2} + \underline{7x} - \underline{4} + \underline{6x^2} + \underline{9}$$

$$\underline{-3x^2} + \underline{6x^2} + \underline{7x} - \underline{4} + \underline{9}$$
$$\boxed{3x^2 + 7x + 5}$$

$$-3 + 6 = 3$$

$$-4 + 9 = +5$$

③ $(-7a + 9) + (9a - 3) + (4a^2 + 7)$

$$\underline{-7a} + \underline{9} + \underline{9a} - \underline{3} + \underline{4a^2} + \underline{7}$$

$$\underline{-7a} + \underline{9a} + \underline{9} - \underline{3} + \underline{7} + \underline{4a^2}$$

$$9 + 7 = 16 - 3 = 13$$

$$✓ 2a + 13 + 4a^2$$

$$✓ \boxed{4a^2 + 2a + 13}$$