

Name:

Adding and Multiplying Binomials

Simplify:

① $(2x^2 + 7) + (x + 4x^2)$

② $(3x - 7)(2x^2 - 9)$

③ $3(x^2 + 7x) + (2x + 3)$

④ $(x + 4)(2x + 9)$

⑤ $(5x - x^2) + (3x^2 + 2x)$

⑥ $(4x + 9)(x^2 + 2x)$

⑦ $(x - 9)(3x^2 - 9)$

⑧ $(3x - 7) + (2x^2 + 9)$

⑨ $(2x^2 + 16)(x - 11)$

⑩ $(4x + 16) + (x^2 + 8x)$

Name:

Adding and Multiplying Binomials

Answers

① $(2x^2 + 7) + (x + 4x^2)$

$$6x^2 + x + 7$$

② $(3x - 7)(2x^2 - 9)$

$$6x^3 - 14x^2 - 27x + 63$$

③ $3(x^2 + 7x) + (2x + 3)$

$$3x^2 + 23x + 3$$

④ $(x + 4)(2x + 9)$

$$2x^2 + 17x + 36$$

⑤ $(5x - x^2) + (3x^2 + 2x)$

$$2x^2 + 7x$$

⑥ $(4x + 9)(x^2 + 2x)$

$$4x^3 + 17x^2 + 18x$$

⑦ $(x - 9)(3x^2 - 9)$

$$3x^3 - 27x^2 - 9x + 81$$

⑧ $(3x - 7) + (2x^2 + 9)$

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

⑨ $(2x^2 + 16)(x - 11)$

$$2x^3 - 22x^2 + 16x - 176$$

⑩ $(4x + 16) + (x^2 + 8x)$

$$x^2 + 12x + 16$$