

Practice Problem Set

ANSWER KEY

Perform the indicated operation. Write all answers in standard form.

1. $(5p^2 - 3) + (2p^2 - 3p)$

$$5p^2 - 3 + 2p^2 - 3p$$

$$5p^2 - 3 + 2p^2 - 3p$$

$$7p^2 - 3p - 3$$

2. $(-4k^3 + 14 + 3k^2) + (-3k^3 - 14k^2 - 8)$

$$-4k^3 + 14 + 3k^2 - 3k^3 - 14k^2 - 8$$

$$-4k^3 + 14 + 3k^2 - 3k^3 - 14k^2 - 8$$

$$-7k^3 - 11k^2 + 6$$

3. $(3 - 6n^2 - 8n) - 1(-6n^2 + 3n - 1)$

$$3 - 6n^2 - 8n + 6n^2 - 3n + 1$$

$$3 - \cancel{6n^2} - 8n + \cancel{6n^2} - 3n + 1 \text{ zero pair}$$

$$-11n + 4$$

4. Subtract $10x^3 - 2x$ from $8x^3 - x + 6$

$$(8x^3 - x + 6) - (10x^3 - 2x)$$

$$(8x^3 - x + 6) - 1(10x^3 - 2x)$$

$$8x^3 - x + 6 - 10x^3 + 2x$$

$$8x^3 - x + 6 - 10x^3 + 2x$$

$$-2x^3 + x + 6$$

5. Represent the perimeter of the rectangle as a simplified polynomial expression in standard form.

Hint: To find the perimeter of any shape, sum all the sides.

$$(2x^2 - 4) + (2x^2 - 4) + (x^2 - 3x + 8) + (x^2 - 3x + 8)$$

$$2x^2 - 4 + 2x^2 - 4 + x^2 - 3x + 8 + x^2 - 3x + 8$$

$$2x^2 - 4 + 2x^2 - 4 + x^2 - 3x + 8 + x^2 - 3x + 8$$

$$6x^2 - 6x + 8 \text{ units}$$

