BLM 5-9

Name:

Section 5.3 Extra Practice

- **1.** Add the polynomials by collecting like terms. Then, simplify.
 - a) $(3x^2 2x) + (x^2 + x)$ **b)** $(4n^2 - 2n - 4) + (-n^2 + 5n)$ **c)** $(7r - 8) + (3r^2 - 11)$ **d**) $(2b^2 - 8b) + (-2b^2 + 11b)$ **e**) $(7t^2 - 6t + 9) + (-2t^2 + 6t - 5)$ **f)** (-14k - 10) + (8k - 23)
- **2.** Determine the opposite of the expression represented by each diagram. Express the answer in diagrams and symbols.



- **4.** Subtract the polynomials by adding the opposite terms, collecting like terms, and then simplifying.

 - **a)** (5a 4) (3a 2) **b)** (7 6r) (3r r) **c)** $(6y^2 2y) (-y^2 3y)$ **d)** (8 5t) (-9 4t) **f)** $(4k^2 6k + 1) (-2)$ **f)** $(4k^2 - 6k + 1) - (-2k^2 + 5)$
- **5.** A triangle has the dimensions shown.



- **a)** Write the unsimplified expression for the perimeter of the triangle.
- **b)** If x = 6, what is the perimeter? Show your work.
- c) Simplify the expression in part a) for the perimeter of the triangle. Show vour work.
- **d**) Use the simplified expression to verify the perimeter when x = 6. Show your work.