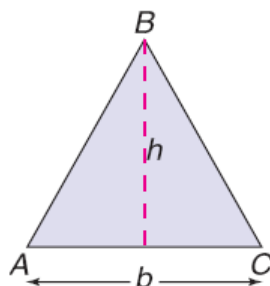**Name:** _____

Operations with Polynomials

Exercise 1: The area of a triangle is given by $\frac{1}{2}bh$, where b is the length of the base of the triangle and h is the measure of the height of the triangle. In triangle ABC, $b = 3x + 8$ and $h = 7x - 4$. Write the polynomial representing the measure of the area of triangle ABC.

Exercise 2: Choose the letter of the term that best matches each statement or phrase.

Each letter is used once.

1. $(x - y)^2$	a. additive inverse
2. a polynomial with two terms	b. binomial
3. a polynomial with three terms	c. degree of a polynomial
4. a monomial or a sum of monomials	d. Distributive Property
5. the sum of the exponents of the variables	e. FOIL method
6. a number, a variable, or a product of numbers and variables	f. like terms
7. Subtract polynomials by adding this.	g. monomial
8. Add polynomials by grouping these together.	h. polynomial
9. Use this to multiply any two binomials.	i. square of a difference
10. Use this to multiply a polynomial by a monomial.	j. trinomial

Exercise 3: Kirsten is making a quilt to enter in the arts festival. The diagram gives the dimensions of each block of the quilt.

a. Find the area of each block.

b. The completed quilt is a square of 36 blocks. Write a product of binomials that could be used to determine the area of the entire quilt.