

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

## Retest Review: POLYNOMIALS &amp; FACTORING

Answer the following.

1. Simplify the algebraic expression  $4(x^2 - 4x + 6) - 2x(x - 5)$ .

\_\_\_\_\_

2. Find the perimeter of the triangle whose sides are  $5x^2 + 6x - 1$ ,  $3x^2 - 2x - 4$ , and  $x^2 - x + 7$ .

\_\_\_\_\_

3. Find the product  $(4x - 3)(6x + 1)$ .

\_\_\_\_\_

4. A rectangle has a width of  $3x + 4$  and a length of  $2x - 5$ , find the expression that would represent the area of the rectangle.

\_\_\_\_\_

Factor completely.

5.  $x^2 + 3x - 18$

6.  $a^2 - 144$

7.  $2a^3 + 8a^2 - 18a$

8.  $3x^2 - 12x - 36$

9.  $x^2 + 16x + 48$

10.  $x^2 - 19x + 78$

11.  $3a^2 - 243$

12.  $6x^2 + 30x - 42$