

Red Belt Warm-Up
Wednesday February 1, 2006

1. Expand the following expressions into quadratic polynomials.

(a) $(x + a)^2 =$

(b) $(x - a)^2 =$

(c) $(x + a)(x - a) =$

(d) $(x + a)(x + b) =$

(e) $x(x + a) =$

(f) $(x + a)(x - b) =$

2. Factor the following expressions.

(a) $ax^2y + bxy^2 =$

(b) $x^2 - a^2 =$

3. If $\left(a + \frac{1}{a}\right)^2 = 12$, find the value of $a^2 + \frac{1}{a^2}$.