

Name: _____

Date: _____

FACTORIZING BASED ON CONJUGATE PAIRS
COMMON CORE ALGEBRA I HOMEWORK**FLUENCY**

1. Use the fact that the product of conjugates follows the following pattern, $(a+b)(a-b) = a^2 - b^2$, to quickly find the following products in standard form.

(a) $(x-5)(x+5)$

(b) $(x+7)(x-7)$

(c) $(2-x)(2+x)$

(d) $(3x+2)(3x-2)$

(e) $(4x+1)(4x-1)$

(f) $(2x+1)(2x-1)$

(g) $(5-4x)(5+4x)$

(h) $(x^2-2)(x^2+2)$

(i) $(x^3+4)(x^3-4)$

2. Write each of the following binomials as an equivalent product of conjugates.

(a) $x^2 - 16$

(b) $x^2 - 100$

(c) $x^2 - 1$

(d) $x^2 - 25$

(e) $4 - x^2$

(f) $9 - x^2$

(g) $4x^2 - 1$

(h) $16x^2 - 49$

(i) $1 - 25x^2$

(j) $x^2 - 9y^2$

(k) $81 - 4t^2$

(l) $x^4 - 36$

