**7.9**

**Name (print first and last)** _____ **Per**_____ **Date:** 3/13 due 3/14

**7.9 Similarity: Solving Quadratic Equations by factoring** **Geometry Regents 2013-2014 Ms. Lomac**

SLO: I can solve quadratic equations by factoring.

(1) ☐ Review the process of factoring and solving a quadratic equation. Describe each step of the process

$-4k^2 - 8k - 3 = -10 - 5k^2$ }⇨ Put on your game face: "You don't scare me!"

$+5k^2 \quad +10 \quad +10 + 5k^2$ }⇨_____

$k^2 - 8k + 7 = 0$ }⇨_____

$(k - \_\_\_)(k - \_\_\_) = 0$ }⇨_____

$k - \_\_\_ = 0 \quad or \quad k - \_\_\_ = 0$ }⇨_____

_____ _____ _____ _____ }⇨_____

$k = \_\_\_ \quad or \quad k = \_\_\_$ }⇨_____

(2) ☐ Use the steps in (1) to help you solve each quadratic below. Watch for greatest common factors. Example: For the expression $6x^2 - 4x$ both $6x^2$ and $4x$ are divisible by 2 and x so $6x^2 - 4x = 2x(3x - 2)$.

☐ (a) $n^2 - 10n + 22 = -2$

☐ (b) $6n^2 - 18n - 18 = 6$

7.9

☐ (c) $b^2 + 5b - 35 = 3b$

☐ (d) $7x^2 + 2x = 0$

☐ (e) $n^2 + 7n + 15 = 5$

☐ (f) $7r^2 - 14r = -7$

☐ (g) $m^2 - 10 = 15$

☐ (h) $2w^2 + 11w = -16 - w$

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