

Algebra I**U7L1 Practice**Name: KEN

1. Put each equation into standard form.

a. $4x + 7 = -5x^2$

$$5x^2 + 4x + 7 = 0$$

c. $8x^2 = 9 - 5x$

$$8x^2 + 5x - 9 = 0$$
$$0 = -8x^2 - 5x + 9$$

b. $2x^2 - 8 = 2x^2 + 7x$

$$-7x - 8 = 0 \quad \text{not quadratic}$$
$$0 = 7x + 8$$

d. $10x^2 - 9 = -8x$

$$10x^2 + 8x - 9 = 0$$

2. Solve each quadratic equation using square roots.

a. $m^2 = 16$

$$m = \pm 4$$

b. $n^2 - 25 = 0$

$$n^2 = 25$$

c. $3p^2 = 12$

$$p^2 = 4$$

d. $\frac{5}{4}q^2 = 20$

$$q^2 = \pm 2$$

$$q^2 = 16$$

$$q = \pm 4$$

e. $a^2 + 10 = 25$

$$a^2 = 15$$

$$a = \pm \sqrt{15}$$

f. $2t^2 - 6 = -4$

$$2t^2 = 2$$

$$t^2 = 1$$

$$t = \pm 1$$

g. $3u^2 + 5 = 17$

$$3u^2 = 12$$

$$u^2 = 4$$

$$u = \pm 2$$

h. $(y-2)^2 - 5 = 11$

$$(y-2)^2 = 16$$

$$y-2 = \pm 4$$

$$y-2 = 4 \quad y-2 = -4$$

$$y = 6 \quad y = -2$$

i. $2(w-3)^2 + 6 = 56$

$$2(w-3)^2 = 50$$

$$(w-3)^2 = 25$$

$$w-3 = \pm 5$$

$$w = 8 \quad w = -2$$