

(C1-2.2a) Name:

## Homework Questions 2 – Solving Quadratic Equations

Solve the following quadratic equations

1.  $(x + 2)(x + 4) = 0$

$$x = -2, -4$$

2.  $(x - 5)(x - 6) = 0$

$$x = 5, 6$$

3.  $(x - 7)(x - 4) = 0$

$$x = 4, 7$$

4.  $x(x + 7) = 0$

$$x = 0, -7$$

5.  $(2x + 3)(x - 8) = 0$

$$x = -1.5, 8$$

6.  $(5x - 3)(x + 5) = 0$

$$x = 0.6, -5$$

Solve the following quadratic equations by factorizing first

7.  $x^2 - 7x + 12 = 0$

$$x = 3, 4$$

8.  $x^2 + 5x - 6 = 0$

$$x = 1, -6$$

9.  $x^2 - 2x - 15 = 0$

$$x = 5, -3$$

10.  $x^2 + 5x - 24 = 0$

$$x = 3, -8$$

11.  $x^2 + 11x + 30 = 0$

$$x = -5, -6$$

12.  $x^2 = 88 - 3x$

$$x = 8, -11$$

13.  $x^2 = 6x - 8$

$x = 2, 4$

14.  $7x = x^2 - 30$

$x = -3, 10$

15.  $2x^2 - 3 = x$

$x = 1.5, -1$

16.  $4x^2 - 29x + 7 = 0$

$x = 0.25, 7$

17.  $4x^2 = x$

$x = 0, 0.25$

Solve these equations, leave your answer in surd form if necessary

18.  $(3x - 2)^2 = 36$

$x = 2.67, -1.33$

19.  $3x^2 = 27$

$x = -3, 3$

20.  $(x - 4)^2 = 8$

$x = \pm 2\sqrt{2} + 4$

