Solve the following quadratic equations.

1. $x^2 - 3x + 2 = 0$

$(x - 2)(x - 1) = 0$

$x - 2 = 0$	$x - 1 = 0$
$x = 2$	$x = 1$

x = {2, 1}

2. $z^2 - 5z + 4 = 0$

$(z - 4)(z - 1) = 0$

$z - 4 = 0$	$z - 1 = 0$
$z = 4$	$z = 1$

z = {4, 1}

3. $x^2 - 8x + 16 = 0$

$(x - 4)(x - 4) = 0$

$x - 4 = 0$	$x - 4 = 0$
$x = 4$	$x = 4$

x = {4}

4. $c^2 + 6c = -5$

+5 +5

$c^2 + 6c + 5 = 0$

$(c + 5)(c + 1) = 0$

$c + 5 = 0$	$c + 1 = 0$
$c = -5$	$c = -1$

c = {-5, -1}

5. $10m^2 + 10m = 0$

$10m(m + 1) = 0$

$\frac{10m}{10} = \frac{0}{10}$	$m + 1 = 0$
$m = 0$	$m = -1$

m = {0, -1}

6. $m^2 - 64 = 0$

$(m + 8)(m - 8) = 0$

$m + 8 = 0$	$m - 8 = 0$
$m = -8$	$m = 8$

m = {-8, 8}

7. $3x^2 - 12 = 0$

$3(x^2 - 4) = 0$

$3(x - 2)(x + 2) = 0$

$x - 2 = 0$	$x + 2 = 0$
$x = 2$	$x = -2$

x = {2, -2}

8. $2x^2 + 20x = -18$

+18 +18

$2x^2 + 20x + 18 = 0$

$2(x^2 + 10x + 9) = 0$

$2(x + 1)(x + 9) = 0$

$x + 1 = 0$	$x + 9 = 0$
$x = -1$	$x = -9$

x = {-1, -9}

9. $5x^2 - 60x = 140$

-140 -140

$5x^2 - 60x - 140 = 0$

$5(x^2 - 12x - 28) = 0$

$5(x - 14)(x + 2) = 0$

$x - 14 = 0$	$x + 2 = 0$
$x = 14$	$x = -2$

x = {14, -2}