Completing the Square

Solve each quadratic equation by completing the square.

1) $k^2 - 2k - 8 = 0$

2) $x^2 - 2x = -26$

3) $p^2 - p = 2$

4) $n^2 + n - 30 = 0$

5) $u(u + 6) = 3$

6) $35 = g^2 - 2g$

7) $7y = y^2 + 12$

8) $t^2 - 7t + 6 = 0$

9) $m^2 + 8m + 10 = 0$

10) $h^2 - 4h - 32 = 0$

Completing the Square

ES1

Solve each quadratic equation by completing the square.

1) $k^2 - 2k - 8 = 0$

$k = -2 \: ; \: k = 4$

2) $x^2 - 2x = -26$

$x = 1 \pm 5i$

3) $p^2 - p = 2$

$p = -1 \: ; \: p = 2$

4) $n^2 + n - 30 = 0$

$n = -6 \: ; \: n = 5$

5) $u(u + 6) = 3$

$u = -3 \pm 2\sqrt{3}$

6) $35 = g^2 - 2g$

$g = -5 \: ; \: g = 7$

7) $7y = y^2 + 12$

$y = 3 \: ; \: y = 4$

8) $t^2 - 7t + 6 = 0$

$t = 1 \: ; \: t = 6$

9) $m^2 + 8m + 10 = 0$

$m = -4 \pm \sqrt{6}$

10) $h^2 - 4h - 32 = 0$

$h = -4 \: ; \: h = 8$