

This section is very similar to section 3.3, except that we now use Completing the Square (CTS) to determine the roots of quadratic equations

Example 1: Determine the roots for the following equations by CTS

a) $x^2 - 6x - 27 = 0$	b) $x^2 + 8x = -11$
c) $2x^2 = 5x + 1$	d) $2x = 6 - 5x^2$

Example 2: The function $h(t) = -5t^2 + 20t + 2$ gives the height, ' $h(t)$ ' meters, of a thrown football as a function of the time, ' t ' seconds, since it was thrown. The football hits the ground before a receiver could get near it.

a) How long was the football in the air, to the nearest tenth?

b) How many seconds was the height of the football at least 17 meters?

Example 3: Two numbers have a difference of 20. The sum of their squares is equal to 250. Determine the two numbers.

Homework: