The Quadratic Formula

1. Solve each equation by factoring.
   a) $2x^2 - 50 = 0$ b) $x^2 + 9x = 0$

2. Solve each equation using the Quadratic Formula. Write your answer correct to 2 decimals.
   a) $6x^2 + x - 15 = 0$ b) $4x^2 - 20x + 25 = 0$ c) $5x^2 - 11x = 0$

3. A trained stunt diver is diving off a platform that is 15 m high into a pool of water that is 45 cm
   deep. The height, h, in metres, of the stunt diver above the water is modelled by
   $h = -4.9t^2 + 1.2t + 15$, where t is the time in seconds after starting the dive.
   a) How long is the stunt diver above 15 m?
   b) How long is the stunt diver in the air?

4. Calculate the value of x.

$x + 7$

x

$x + 9$