

**31** (a)  $3x^2 = 1 - x \Rightarrow 3x^2 + x - 1 = 0$

(b)  $b^2 - 4ac = 1^2 - 4(3)(-1) = 13 > 0$ . There are two solutions.

(c)  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-1 \pm \sqrt{13}}{2(3)} = -\frac{1}{6} \pm \frac{1}{6}\sqrt{13} \approx 0.4343, -0.7676$