

Starter 10 FEB 2017  
 Factor and Solve by completing the square.

$4x^2 + 28x + 33 = 0$

$4x^2 + 28x + 49 = 33 + 49$

$\sqrt{(2x+7)^2} = \sqrt{16}$

$2x+7 = \pm 4$

$2x+7 = 4 \quad \& \quad 2x+7 = -4$

$\frac{-7}{2} \quad \frac{-7}{2}$        $\frac{-7}{2} \quad \frac{-7}{2}$

$\frac{2x}{2} = \frac{-3}{2}$        $\frac{2x}{2} = \frac{-11}{2}$

$x = -\frac{3}{2}$        $x = -\frac{11}{2}$

$4x^2$	$14x$
$+7$	$49$

Review Solving Quadratic Equations with perfect squares.  
 Multiply and move all terms to the left.

1)  $(4x-7)^2 = 9$        $(4x-7)(4x-7) = 9$

Solve for the variable

2)  $(x+8)^2 = 25$       3)  $3(x+6)^2 = 48$

4)  $3(2x+7)^2 + 12 = 87$

Factor / Solve the variable by completing the square.

5)  $x^2 + 10x - 11 = 0$       6)  $x^2 - 8x - 65 = 0$


7)  $4x^2 + 28x + 13 = 0$
