



## Completing the Square

Find the value of  $c$  that completes the square

Ex. 1  $x^2 + 10x + c$

$a = 1$

$b/2 = -5$

$b = -10$

$c = (b/2)^2$

$c = (-5)^2$

$c = 25$

Ex. 2  $x^2 + \frac{1}{2}x + c$

$a = 1$

$b/2 = 1/4$

$b = \frac{1}{2}$

$c = (b/2)^2$

$c = (1/4)^2$

$c = 1/16$

1.  $x^2 + 16x + c$

5.  $x^2 + x + c$

2.  $x^2 - 12x + c$

6.  $x^2 + 2/3x + c$

3.  $x^2 + 9x + c$

7.  $x^2 - 11/4x + c$

4.  $x^2 - 38x + c$

8.  $x^2 - 13x + c$