

## Practice Problems

Solve each of the following equations. Make sure to check your solutions.

1.  $(x - 3)^2 - (2x - 5)(x + 1) = 5 - (x - 1)^2$
2.  $7 - (2x - 1)(x + 5) = (3 - x)(2x + 7) - 1$
3.  $(-2m - 1)^2 - (m - 2)(3m + 5) - 13 = (m - 3)^2$
4.  $(x + 1)^2 - (2x - 1)^2 + (3x)^2 = 6x(x - 2)$
5.  $2 - (3 - p)(2p + 5) = (p - 1)(2p - 1)$
6.  $(x + 1)(-5x + 2) + (2x - 3)^2 = x(-16 - x)$
7.  $12 - (2p - 1)(p + 1) = -2(-p + 5)^2$
8.  $(3x + 1)^2 - (3x - 1)^2 = 3(x - 6)$
9.  $(x + 7)(2x - 3) - (2(x - 1)^2 - 1) = (x + 1)^2 - (x - 3)^2$
10.  $3(a + 11) - a(8 - 3a) = 3(a - 2)^2$
11.  $-5(2x - 1) - (4 - x)^2 = 3 - (x + 1)^2$
12.  $(2 - w)^2 - (2w - 3)^2 + 7 = (w - 2)(5 - 3w)$
13.  $(2x - 3)^2 - 3(x - 2)^2 = 10 - (x - 2)(7 - x)$
14.  $y^2 - (y - 1)^2 + (y - 2)^2 = (y - 3)(y - 5)$
15.  $(3x)^2 - (x + 3)(5x - 3) = (5 - 2x)^2 - 16$
16.  $(w + 4)(1 - 2w) = 3w - 2(w - 3)^2$

## Practice Problems - Answers

- 1.) 2    2.) -1    3.) 1    4.) 0    5.) 7    6.) -11    7.) 3    8.) -2    9.) 2  
10.) -3    11.) There is no solution.    12.) 4    13.) 3    14.) 2    15.) 0    16.) 1