

Completing the square

Solve each equation by completing the square. Show solutions and send it to my personal line chat.

1) $a^2 - 18a - 11 = -6$

A) $\left\{\frac{4}{3}, -\frac{10}{3}\right\}$

B) $\{17, -1\}$

C) $\left\{\frac{10 + \sqrt{910}}{10}, \frac{10 - \sqrt{910}}{10}\right\}$

D) $\{9 + \sqrt{86}, 9 - \sqrt{86}\}$

2) $6m^2 - 12m - 63 = -3$

A) $\{-6 + 3\sqrt{10}, -6 - 3\sqrt{10}\}$

B) $\{18, 2\}$

C) $\{-3 + 3\sqrt{7}, -3 - 3\sqrt{7}\}$

D) $\{1 + \sqrt{11}, 1 - \sqrt{11}\}$

3) $x^2 - 10x - 19 = 10$

A) $\{5 + 3\sqrt{6}, 5 - 3\sqrt{6}\}$

B) $\{17, -5\}$

C) $\{7, -3\}$

D) $\{2 + \sqrt{34}, 2 - \sqrt{34}\}$

4) $p^2 - 18p + 20 = 3$

A) $\left\{\frac{-3 + \sqrt{106}}{3}, \frac{-3 - \sqrt{106}}{3}\right\}$

B) $\{-1 + \sqrt{66}, -1 - \sqrt{66}\}$

C) $\{17, 1\}$

D) $\{-9 + 7\sqrt{2}, -9 - 7\sqrt{2}\}$

5) $n^2 - 6n - 68 = 9$

A) $\{3 + \sqrt{86}, 3 - \sqrt{86}\}$

B) $\{3, -5\}$

C) $\{5, -15\}$

D) $\{20, -4\}$

6) $x^2 + 10x - 38 = 2$

A) $\{5, 1\}$

B) $\{6, -16\}$

C) $\{-5 + \sqrt{65}, -5 - \sqrt{65}\}$

D) $\left\{\frac{7}{3}, -\frac{1}{3}\right\}$