

Completing the square review

Date _____ Period _____

Solve each equation by completing the square. (a is 1)

1) $n^2 - 14n + 45 = 0$

2) $v^2 + 12v + 24 = 0$

3) $x^2 + 8x + 12 = 0$

4) $b^2 + 12b + 10 = 0$

Solve each equation by completing the square. (a is not 1)

5) $3n^2 + 18n - 81 = 0$

6) $2v^2 + 16v - 66 = 0$

7) $5n^2 - 10n - 95 = 0$

8) $2n^2 + 20n + 42 = 0$

9) I will do this one
 $8x^2 - 16x - 90 = 0$

10) $9k^2 + 18k - 16 = 0$

Solve each equation by completing the square. (fractions)

11) $k^2 + 9k - 10 = 0$

12) $x^2 + x - 42 = 0$

13) $k^2 + 5k + 4 = 0$

14) $p^2 - 3p - 13 = 0$

15) $b^2 + 19b + 93 = 9$

16) $x^2 - 9x - 6 = -2$

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Solve each equation by completing the square. (a is 1)

1) $n^2 - 14n + 45 = 0$

$\{9, 5\}$

2) $v^2 + 12v + 24 = 0$

$\{-6 + 2\sqrt{3}, -6 - 2\sqrt{3}\}$

3) $x^2 + 8x + 12 = 0$

$\{-2, -6\}$

4) $b^2 + 12b + 10 = 0$

$\{-6 + \sqrt{26}, -6 - \sqrt{26}\}$

Solve each equation by completing the square. (a is not 1)

5) $3n^2 + 18n - 81 = 0$

$\{3, -9\}$

6) $2v^2 + 16v - 66 = 0$

$\{3, -11\}$

7) $5n^2 - 10n - 95 = 0$

$\{1 + 2\sqrt{5}, 1 - 2\sqrt{5}\}$

8) $2n^2 + 20n + 42 = 0$

$\{-3, -7\}$

9) I will do this one

$8x^2 - 16x - 90 = 0$

$\{\frac{9}{2}, -\frac{5}{2}\}$

10) $9k^2 + 18k - 16 = 0$

$\{\frac{2}{3}, -2\frac{2}{3}\}$

Solve each equation by completing the square. (fractions)

11) $k^2 + 9k - 10 = 0$

$\{1, -10\}$

12) $x^2 + x - 42 = 0$

$\{6, -7\}$

13) $k^2 + 5k + 4 = 0$

$\{-1, -4\}$

14) $p^2 - 3p - 13 = 0$

$\{\frac{3 + \sqrt{61}}{2}, \frac{3 - \sqrt{61}}{2}\}$

15) $b^2 + 19b + 93 = 9$

$\{-7, -12\}$

16) $x^2 - 9x - 6 = -2$

$\{\frac{9 + \sqrt{97}}{2}, \frac{9 - \sqrt{97}}{2}\}$