

Solve each equation with the quadratic formula.

1) $-4m^2 - 11m + 67 = -2$

2) $-9b^2 - 10b - 17 = -9$

3) $-2n^2 + 8n + 7 = -9$

4) $7b^2 + 6b + 12 = 6$

5) $n^2 - 3n + 22 = 10$

6) $n^2 - 4n - 55 = -10$

7) $2b^2 - 7b - 29 = -6$

8) $-10n^2 + 10 = -5$

$$9) 4r^2 - 6 = -12r - 9$$

$$10) -7p^2 + 2 = -6p$$

$$11) 9b^2 - 16 = -b - 2b^2$$

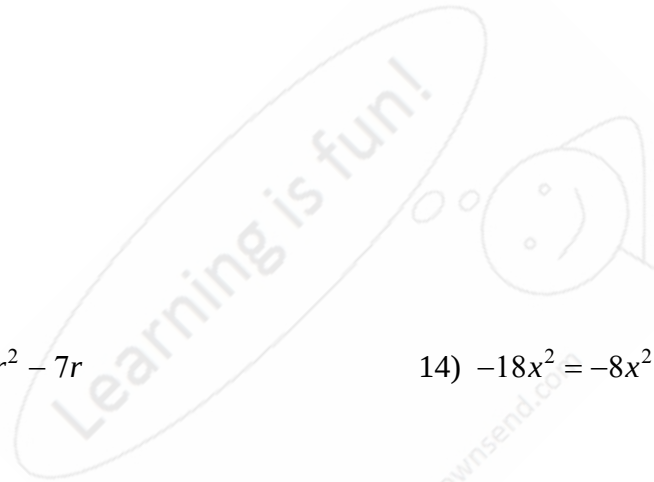
$$12) -2p^2 + 13p + 39 = 6p$$

$$13) 3r^2 + 32 - 7r = 5r^2 - 7r$$

$$14) -18x^2 = -8x^2 - 3 + 10x$$

$$15) x^2 - 9x - 94 = -5x + 2$$

$$16) 8a^2 + 2a - 14 = 4a^2 + 4$$



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Answers to

- 1) $\left\{-\frac{23}{4}, 3\right\}$ 2) $\left\{\frac{-5-i\sqrt{47}}{9}, \frac{-5+i\sqrt{47}}{9}\right\}$ 3) $\{2-2\sqrt{3}, 2+2\sqrt{3}\}$
- 4) $\left\{\frac{-3+i\sqrt{33}}{7}, \frac{-3-i\sqrt{33}}{7}\right\}$ 5) $\left\{\frac{3+i\sqrt{39}}{2}, \frac{3-i\sqrt{39}}{2}\right\}$ 6) $\{9, -5\}$
- 7) $\left\{\frac{7+\sqrt{233}}{4}, \frac{7-\sqrt{233}}{4}\right\}$ 8) $\left\{-\frac{\sqrt{6}}{2}, \frac{\sqrt{6}}{2}\right\}$ 9) $\left\{\frac{-3+\sqrt{6}}{2}, \frac{-3-\sqrt{6}}{2}\right\}$
- 10) $\left\{\frac{3-\sqrt{23}}{7}, \frac{3+\sqrt{23}}{7}\right\}$ 11) $\left\{\frac{-1+\sqrt{705}}{22}, \frac{-1-\sqrt{705}}{22}\right\}$ 12) $\left\{-3, \frac{13}{2}\right\}$
- 13) $\{-4, 4\}$ 14) $\left\{\frac{-5-\sqrt{55}}{10}, \frac{-5+\sqrt{55}}{10}\right\}$ 15) $\{12, -8\}$
- 16) $\left\{\frac{-1+\sqrt{73}}{4}, \frac{-1-\sqrt{73}}{4}\right\}$

