

Name \_\_\_\_\_



Date \_\_\_\_\_

## Quadratic Equations

(Answer ID # 0462781)

**Find the vertex and axis of symmetry of the parabola.**

1. $11x^2 - 10x - 12 = 0$	2. $-2x^2 - 9x + 1 = 0$	3. $-x^2 - 7x + 10 = 0$
4. $4x^2 - 6x - 3 = 0$	5. $2x^2 - 11x - 1 = 0$	6. $-9x^2 - 12x + 4 = 0$
7. $5x^2 + 8x + 1 = 0$	8. $-9x^2 - 3x + 11 = 0$	9. $-7x^2 + 2x + 10 = 0$
10. $-x^2 + x + 2 = 0$	11. $10x^2 - 11x - 3 = 0$	12. $-5x^2 + 7x - 1 = 0$
13. $9x^2 - 10x - 4 = 0$	14. $6x^2 + 11x - 1 = 0$	15. $12x^2 + 9x - 2 = 0$

Name \_\_\_\_\_



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## Quadratic Equations

(Answer ID # 0720505)

Find the vertex and axis of symmetry of the parabola.

1. $11x^2 - 10x - 12 = 0$  <b>vertex = <math>(\frac{5}{11}, -14\frac{3}{11})</math></b>  <b><math>x = \frac{5}{11}</math></b>	2. $-2x^2 - 9x + 1 = 0$  <b>vertex = <math>(-2\frac{1}{4}, 11\frac{1}{8})</math></b>  <b><math>x = -2\frac{1}{4}</math></b>	3. $-x^2 - 7x + 10 = 0$  <b>vertex = <math>(-3\frac{1}{2}, 22\frac{1}{4})</math></b>  <b><math>x = -3\frac{1}{2}</math></b>
4. $4x^2 - 6x - 3 = 0$  <b>vertex = <math>(\frac{3}{4}, -5\frac{1}{4})</math></b>  <b><math>x = \frac{3}{4}</math></b>	5. $2x^2 - 11x - 1 = 0$  <b>vertex = <math>(2\frac{3}{4}, -16\frac{1}{8})</math></b>  <b><math>x = 2\frac{3}{4}</math></b>	6. $-9x^2 - 12x + 4 = 0$  <b>vertex = <math>(-\frac{2}{3}, 8)</math></b>  <b><math>x = -\frac{2}{3}</math></b>
7. $5x^2 + 8x + 1 = 0$  <b>vertex = <math>(-\frac{4}{5}, 2\frac{1}{5})</math></b>  <b><math>x = -\frac{4}{5}</math></b>	8. $-9x^2 - 3x + 11 = 0$  <b>vertex = <math>(-\frac{1}{6}, 11\frac{1}{4})</math></b>  <b><math>x = -\frac{1}{6}</math></b>	9. $-7x^2 + 2x + 10 = 0$  <b>vertex = <math>(\frac{1}{7}, 10\frac{1}{7})</math></b>  <b><math>x = \frac{1}{7}</math></b>

10. $-x^2 + x + 2 = 0$  <b>vertex = <math>(\frac{1}{2}, 13\frac{1}{2})</math></b> <b><math>x = \frac{1}{2}</math></b>	11. $10x^2 - 11x - 3 = 0$  <b>vertex = <math>(\frac{11}{20}, -6\frac{1}{40})</math></b> <b><math>x = \frac{11}{20}</math></b>	12. $-5x^2 + 7x - 1 = 0$  <b>vertex = <math>(\frac{7}{10}, 1\frac{9}{20})</math></b> <b><math>x = \frac{7}{10}</math></b>
13. $9x^2 - 10x - 4 = 0$  <b>vertex = <math>(\frac{5}{9}, -6\frac{7}{9})</math></b> <b><math>x = \frac{5}{9}</math></b>	14. $6x^2 + 11x - 1 = 0$  <b>vertex = <math>(\frac{-11}{12}, -6\frac{1}{24})</math></b> <b><math>x = \frac{-11}{12}</math></b>	15. $12x^2 + 9x - 2 = 0$  <b>vertex = <math>(\frac{-3}{8}, -3\frac{11}{16})</math></b> <b><math>x = \frac{-3}{8}</math></b>