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Batch 50532dbd

Solving Quadratic Equations

Version 1

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 10x + 16 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 11x + 30 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$10x^2 - 27x - 81 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$50x^2 - 105x + 49 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$3.9x^2 + 20.28x + 30.264 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$5.2x^2 - 30.68x + 39.52 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$6x^2 - 72.6x + 170.88 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$4.1x^2 + 72.16x + 317.504 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$6.7x^2 + 85.76x + 201.469 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$8.3x^2 - 119.52x + 427.284 = 0$$

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Solving Quadratic Equations

Version 5

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 10x + 21 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 7x + 12 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$100x^2 - 180x + 81 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$4x^2 - 9 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$5.6x^2 - 57.12x + 60.48 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$5.4x^2 - 13.5x - 170.1 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$5.6x^2 - 32.48x - 154.504 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$6.6x^2 - 52.8x + 79.2 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 - 35.88x - 288.288 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$4.4x^2 + 82.72x + 393.184 = 0$$

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Solving Quadratic Equations

Version 6

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 2x + 2 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 7x + 12 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$25x^2 + 10x - 63 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$25x^2 - 60x + 36 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$6.1x^2 - 31.11x - 198.616 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$1.5x^2 + 6.9x - 28.08 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$6.6x^2 - 47.52x + 4.686 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$4.3x^2 - 39.56x - 29.799 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$1.7x^2 - 15.13x + 32.708 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$2.2x^2 - 40.04x + 181.984 = 0$$

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Solving Quadratic Equations

Version 7

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 13x + 42 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 5x + 6 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$50x^2 + 55x - 6 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$10x^2 - 57x + 54 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$8.4x^2 - 64.68x - 98.28 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 + 0.78x - 175.968 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$5.8x^2 + 29x - 139.2 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$7.4x^2 - 63.64x + 144.226 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$5.9x^2 + 86.14x + 314.411 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$8.5x^2 + 149.6x + 654.075 = 0$$

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Solving Quadratic Equations

Version 8

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 3x - 4 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 4x + 5 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$20x^2 - 48x - 5 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 49x + 18 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$2.7x^2 + 18.63x + 26.46 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$5.5x^2 - 1.1x - 360.8 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$9.2x^2 - 110.4x + 331.2 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$3x^2 - 6.3x - 28.38 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$1.8x^2 + 1.08x - 37.926 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$9.2x^2 - 82.8x + 184 = 0$$

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Solving Quadratic Equations

Version 9

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution. $ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

$$(1) \ x \in \left\{ \boxed{} \right\}$$

$$x^2 + 6x + 5 = 0$$

$$(2) \ x \in \left\{ \boxed{} \right\}$$

$$x^2 - 17x + 72 = 0$$

$$(3) \ x \in \left\{ \boxed{} \right\}$$

$$20x^2 + 36x + 9 = 0$$

$$(4) \ x \in \left\{ \boxed{} \right\}$$

$$4x^2 - 8x + 3 = 0$$

$$(5) \ x \in \left\{ \boxed{} \right\}$$

$$7.7x^2 - 10.78x + 11.473 = 0$$

$$(6) \ x \in \left\{ \boxed{} \right\}$$

$$6x^2 + 24x - 184.86 = 0$$

$$(7) \ x \in \left\{ \boxed{} \right\}$$

$$9.4x^2 + 120.32x + 375.624 = 0$$

$$(8) \ x \in \left\{ \boxed{} \right\}$$

$$5.4x^2 + 92.88x + 395.01 = 0$$

$$(9) \ x \in \left\{ \boxed{} \right\}$$

$$6.5x^2 + 95.55x + 347.49 = 0$$

$$(10) \ x \in \left\{ \boxed{} \right\}$$

$$3.7x^2 + 18.5x + 23.125 = 0$$

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Solving Quadratic Equations

Version 10

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 11x + 18 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - x - 6 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$100x^2 + 20x + 2 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$50x^2 + 65x + 18 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$8.6x^2 + 42.14x - 8.772 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$1.3x^2 - 1.43x - 12.506 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$8.8x^2 - 9.68x - 750.288 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$1.6x^2 - 16x + 40 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$9.4x^2 - 146.64x + 556.01 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$9.1x^2 + 131.95x + 432.25 = 0$$

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Solving Quadratic Equations

Version 11

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 3x - 28 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 18x + 82 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 3x - 18 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$20x^2 - 76x - 63 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$6.2x^2 + 5.58x - 42.284 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$7.4x^2 + 4.44x - 231.398 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$6.7x^2 + 2.68x - 376.607 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$4.8x^2 - 70.56x + 256.608 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$8.9x^2 + 67.64x + 128.516 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$9x^2 - 15.3x - 391.5 = 0$$

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Solving Quadratic Equations

Version 12

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 5x + 4 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 10x + 24 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$20x^2 - 64x + 35 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$5x^2 - 4x - 1 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$1.3x^2 - 11.44x + 10.14 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$3.8x^2 + 17.86x + 9.348 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$5.7x^2 - 45.6x + 96.9 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$6.2x^2 + 16.12x - 198.09 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$1.6x^2 - 27.84x + 121.104 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$4.2x^2 - 22.26x - 61.32 = 0$$

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Solving Quadratic Equations

Version 13

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution. $ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

$$(1) \ x \in \left\{ \boxed{} \right\}$$

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

$$(2) \ x \in \left\{ \boxed{} \right\}$$

$$x^2 - 5x - 36 = 0$$

$$(3) \ x \in \left\{ \boxed{} \right\}$$

$$25x^2 - 30x + 9 = 0$$

$$(4) \ x \in \left\{ \boxed{} \right\}$$

$$50x^2 + 35x + 6 = 0$$

$$(5) \ x \in \left\{ \boxed{} \right\}$$

$$6.5x^2 - 48.75x + 90.09 = 0$$

$$(6) \ x \in \left\{ \boxed{} \right\}$$

$$8x^2 + 36.8x - 20.4 = 0$$

$$(7) \ x \in \left\{ \boxed{} \right\}$$

$$9.5x^2 - 46.55x - 131.1 = 0$$

$$(8) \ x \in \left\{ \boxed{} \right\}$$

$$4x^2 + 16x + 20 = 0$$

$$(9) \ x \in \left\{ \boxed{} \right\}$$

$$5.5x^2 - 73.15x + 226.38 = 0$$

$$(10) \ x \in \left\{ \boxed{} \right\}$$

$$8.9x^2 + 19.58x - 400.767 = 0$$

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Solving Quadratic Equations

Version 14

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 6x + 9 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 8x + 7 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$20x^2 + 16x + 3 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$20x^2 + 52x - 63 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$5.4x^2 + 25.92x - 132.246 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$7.3x^2 + 70.81x + 39.858 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$1.3x^2 + 17.16x + 57.928 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 - 56.16x + 26.13 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$3.9x^2 - 32.37x + 60.06 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$1.8x^2 - 5.4x - 52.398 = 0$$

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Solving Quadratic Equations

Version 15

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 12x + 32 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 3x - 28 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$2x^2 - 11x + 12 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$50x^2 + 55x - 21 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$9.4x^2 + 22.56x + 22.936 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$7.5x^2 + 3x - 91.575 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$3.4x^2 + 62.56x + 287.776 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$6.2x^2 - 19.84x - 121.086 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$5.2x^2 + 48.88x + 79.716 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$5.1x^2 + 19.38x - 260.865 = 0$$

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Solving Quadratic Equations

Version 16

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 2x - 35 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 12x + 35 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$50x^2 + 45x + 7 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$100x^2 + 180x + 82 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$2.5x^2 + 20.5x + 42.025 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$1.1x^2 + 11.77x + 27.302 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$7.1x^2 - 34.08x - 36.423 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$3.7x^2 + 37x + 91.168 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$2.2x^2 - 22.44x + 20.24 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$5.9x^2 + 89.68x + 337.008 = 0$$

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Solving Quadratic Equations

Version 17

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 6x + 9 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 2x - 24 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$100x^2 + 40x + 3 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$4x^2 + 4x - 15 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$2.1x^2 + 26.88x + 83.916 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$4.1x^2 + 40.18x + 83.64 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$4.2x^2 - 31.92x + 64.848 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$1.8x^2 - 6.48x - 79.866 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$4.3x^2 - 22.36x - 12.255 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$7.3x^2 + 69.35x + 159.432 = 0$$

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Solving Quadratic Equations

Version 18

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 4x - 5 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

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

(3) $x \in \left\{ \boxed{} \right\}$

$$2x^2 - 21x + 27 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 77x - 24 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$6.1x^2 - 109.8x + 500.2 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$5.3x^2 - 23.85x + 22.048 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$6.8x^2 - 70.04x + 154.496 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$5.8x^2 + 43.5x + 37.7 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$9.3x^2 - 13.02x + 4.557 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$5.6x^2 - 39.2x + 52.416 = 0$$

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Solving Quadratic Equations

Version 19

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution. $ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

$$(1) \ x \in \left\{ \boxed{} \right\}$$

$$x^2 + 4x - 32 = 0$$

$$(2) \ x \in \left\{ \boxed{} \right\}$$

$$x^2 - 12x + 35 = 0$$

$$(3) \ x \in \left\{ \boxed{} \right\}$$

$$25x^2 + 30x - 27 = 0$$

$$(4) \ x \in \left\{ \boxed{} \right\}$$

$$10x^2 + 89x - 9 = 0$$

$$(5) \ x \in \left\{ \boxed{} \right\}$$

$$3.2x^2 - 8.96x - 39.936 = 0$$

$$(6) \ x \in \left\{ \boxed{} \right\}$$

$$4.2x^2 + 42.84x + 113.442 = 0$$

$$(7) \ x \in \left\{ \boxed{} \right\}$$

$$1.6x^2 - 2.88x + 1.296 = 0$$

$$(8) \ x \in \left\{ \boxed{} \right\}$$

$$8.3x^2 + 23.24x - 234.807 = 0$$

$$(9) \ x \in \left\{ \boxed{} \right\}$$

$$2.4x^2 - 26.4x + 53.784 = 0$$

$$(10) \ x \in \left\{ \boxed{} \right\}$$

$$7.6x^2 - 74.48x + 171.532 = 0$$

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Solving Quadratic Equations

Version 20

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

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

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 5x - 6 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$4x^2 + 20x + 9 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$100x^2 - 140x + 49 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$2x^2 - 22.4x + 50.22 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$3.4x^2 + 41.82x + 109.82 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$6x^2 - 19.2x + 14.4 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$9.6x^2 + 62.4x - 19.584 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$3.7x^2 + 12.58x + 5.365 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$7x^2 + 131.6x + 625.52 = 0$$

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Solving Quadratic Equations

Version 21

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 15x + 54 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 3x - 18 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 31x - 14 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$100x^2 + 160x + 63 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$3.6x^2 + 5.4x - 51.336 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$4.4x^2 + 62.48x + 221.804 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$9.3x^2 + 74.4x + 130.572 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 - 20.28x - 52.416 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$5.8x^2 - 18.56x - 24.36 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$7.1x^2 - 97.98x + 345.131 = 0$$

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Solving Quadratic Equations

Version 22

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 4x - 12 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 36 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$4x^2 - 81 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$25x^2 - 9 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$4x^2 + 19.6x - 180.48 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$8.5x^2 + 9.35x - 222.87 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$2.9x^2 - 31.61x + 60.9 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$5.6x^2 - 84.56x + 318.864 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$1.9x^2 - 24.7x + 80.275 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$8.3x^2 - 43.16x + 64.408 = 0$$

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Solving Quadratic Equations

Version 23

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 18x + 82 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 - 4x - 12 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 47x - 15 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$25x^2 + 5x - 12 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$9.1x^2 - 44.59x + 54.6 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$4.5x^2 + 31.5x - 101.52 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$7.5x^2 - 42.75x - 291 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$2.1x^2 - 0.42x + 0.021 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$3.1x^2 + 36.58x + 58.311 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$5.7x^2 + 6.84x - 203.148 = 0$$

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Solving Quadratic Equations

Version 25

Example: $(x + 2)(2x - 3) = 0$ has the solution

$$x \in \{-2, 1.5\}$$

Use $x \in \emptyset$ if there is no solution.

$ax^2 + bx + c = 0$ has the solution

$$x \in \left\{ \frac{-b - \sqrt{b^2 - 4ac}}{2a}, \frac{-b + \sqrt{b^2 - 4ac}}{2a} \right\}$$

(1) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 5x - 14 = 0$$

(2) $x \in \left\{ \boxed{} \right\}$

$$x^2 + 4x + 5 = 0$$

(3) $x \in \left\{ \boxed{} \right\}$

$$5x^2 + 6x - 8 = 0$$

(4) $x \in \left\{ \boxed{} \right\}$

$$10x^2 + 29x - 21 = 0$$

(5) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 - 18.72x + 11.232 = 0$$

(6) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 + 85.02x + 212.94 = 0$$

(7) $x \in \left\{ \boxed{} \right\}$

$$5.3x^2 + 43.46x + 27.825 = 0$$

(8) $x \in \left\{ \boxed{} \right\}$

$$3.6x^2 + 31.32x - 38.808 = 0$$

(9) $x \in \left\{ \boxed{} \right\}$

$$7.8x^2 + 2.34x - 147.42 = 0$$

(10) $x \in \left\{ \boxed{} \right\}$

$$7.1x^2 + 36.21x + 3.55 = 0$$

Version 1

(1)	-8	-2	(2)	-6	-5
(3)	-1.8	4.5	(4)	0.7	1.4
(5)	$\emptyset$		(6)	1.9	4
(7)	3.2	8.9	(8)	-8.8	
(9)	-9.7	-3.1	(10)	6.6	7.8

Version 2

(1)	-7		(2)	-9	-6
(3)	-1.4	0.5	(4)	-0.1	0.1
(5)	-9	-2	(6)	$\emptyset$	
(7)	-7.7	5.7	(8)	2.7	8
(9)	8.8	9.5	(10)	-0.3	0.8

Version 3

(1)	8	9	(2)	-4	-1
(3)	-0.5	1.6	(4)	$\emptyset$	
(5)	-0.9	1.1	(6)	5	8.7
(7)	3.3		(8)	-9.8	6.1
(9)	-7.5	-5.2	(10)	-1.4	9.5

Version 4

(1)	$\emptyset$		(2)	-1	5
(3)	-4	-0.5	(4)	-1.4	0.1
(5)	-1.6		(6)	4.1	9.4
(7)	-6.7	1	(8)	-9.1	5.4
(9)	-0.4	7.3	(10)	-7.8	8.9

Version 5

(1)	3	7	(2)	-4	-3
(3)	0.9		(4)	-1.5	1.5
(5)	1.2	9	(6)	-4.5	7
(7)	-3.1	8.9	(8)	2	6
(9)	-4.2	8.8	(10)	$\emptyset$	

Version 6

(1)	$\emptyset$		(2)	-4	-3
(3)	-1.8	1.4	(4)	1.2	
(5)	-3.7	8.8	(6)	-7.2	2.6
(7)	0.1	7.1	(8)	-0.7	9.9
(9)	3.7	5.2	(10)	8.8	9.4

Version 7

(1)	-7	-6	(2)	2	3
(3)	-1.2	0.1	(4)	1.2	4.5
(5)	-1.3	9	(6)	-4.8	4.7
(7)	-8	3	(8)	$\emptyset$	
(9)	-7.3		(10)	-9.5	-8.1

Version 8

(1)	-4	1	(2)	$\emptyset$	
(3)	-0.1	2.5	(4)	-4.5	-0.4
(5)	-4.9	-2	(6)	-8	8.2
(7)	6		(8)	-2.2	4.3
(9)	-4.9	4.3	(10)	4	5

Version 9

(1)	-5	-1	(2)	8	9
(3)	-1.5	-0.3	(4)	0.5	1.5
(5)	$\emptyset$		(6)	-7.9	3.9
(7)	-7.4	-5.4	(8)	-9.5	-7.7
(9)	-8.1	-6.6	(10)	-2.5	

Version 10

(1)	-9	-2	(2)	-2	3
(3)	$\emptyset$		(4)	-0.9	-0.4
(5)	-5.1	0.2	(6)	-2.6	3.7
(7)	-8.7	9.8	(8)	5	
(9)	6.5	9.1	(10)	-9.5	-5

Version 11

(1)	-4	7	(2)	$\emptyset$	
(3)	-1.5	1.2	(4)	-0.7	4.5
(5)	-3.1	2.2	(6)	-5.9	5.3
(7)	-7.7	7.3	(8)	6.6	8.1
(9)	-3.8		(10)	-5.8	7.5

Version 12

(1)	1	4	(2)	-6	-4
(3)	0.7	2.5	(4)	-0.2	1
(5)	1	7.8	(6)	-4.1	-0.6
(7)	$\emptyset$		(8)	-7.1	4.5
(9)	8.7		(10)	-2	7.3

Version 13

(1)	-2	4	(2)	-4	9
(3)	0.6		(4)	-0.4	-0.3
(5)	3.3	4.2	(6)	-5.1	0.5
(7)	-2	6.9	(8)	$\emptyset$	
(9)	4.9	8.4	(10)	-7.9	5.7

Version 14

(1)	-3		(2)	1	7
(3)	-0.5	-0.3	(4)	-3.5	0.9
(5)	-7.9	3.1	(6)	-9.1	-0.6
(7)	$\emptyset$		(8)	0.5	6.7
(9)	2.8	5.5	(10)	-4.1	7.1

Version 15

(1)	-8	-4	(2)	-4	7
(3)	1.5	4	(4)	-1.4	0.3
(5)	$\emptyset$		(6)	-3.7	3.3
(7)	-9.2		(8)	-3.1	6.3
(9)	-7.3	-2.1	(10)	-9.3	5.5

Version 16

(1)	-5	7	(2)	-7	-5
(3)	-0.7	-0.2	(4)	$\emptyset$	
(5)	-4.1		(6)	-7.3	-3.4
(7)	-0.9	5.7	(8)	-5.6	-4.4
(9)	1	9.2	(10)	-8.4	-6.8

Version 17

(1)	-3		(2)	-4	6
(3)	-0.3	-0.1	(4)	-2.5	1.5
(5)	-7.4	-5.4	(6)	-6.8	-3
(7)	$\emptyset$		(8)	-5.1	8.7
(9)	-0.5	5.7	(10)	-5.6	-3.9

Version 18

(1)	-1	5	(2)	-4	3
(3)	1.5	9	(4)	-8	0.3
(5)	$\emptyset$		(6)	1.3	3.2
(7)	3.2	7.1	(8)	-6.5	-1
(9)	0.7		(10)	1.8	5.2

Version 19

(1)	-8	4	(2)	5	7
(3)	-1.8	0.6	(4)	-9	0.1
(5)	-2.4	5.2	(6)	$\emptyset$	
(7)	0.9		(8)	-6.9	4.1
(9)	2.7	8.3	(10)	3.7	6.1

Version 20

(1)	-7	6	(2)	-1	6
(3)	-4.5	-0.5	(4)	0.7	
(5)	3.1	8.1	(6)	-8.5	-3.8
(7)	1.2	2	(8)	-6.8	0.3
(9)	-2.9	-0.5	(10)	$\emptyset$	

Version 21

(1)	6	9	(2)	-6	3
(3)	-3.5	0.4	(4)	-0.9	-0.7
(5)	-4.6	3.1	(6)	-7.1	
(7)	-5.4	-2.6	(8)	-1.6	4.2
(9)	-1	4.2	(10)	$\emptyset$	

Version 22

(1)	-2	6	(2)	-6	6
(3)	-4.5	4.5	(4)	-0.6	0.6
(5)	-9.6	4.7	(6)	-5.7	4.6
(7)	2.5	8.4	(8)	7.3	7.8
(9)	6.5		(10)	$\emptyset$	

Version 23

(1)	$\emptyset$		(2)	-2	6
(3)	-5	0.3	(4)	-0.8	0.6
(5)	2.4	2.5	(6)	-9.4	2.4
(7)	-4	9.7	(8)	0.1	
(9)	-9.9	-1.9	(10)	-6.6	5.4

Version 24

(1)	$\emptyset$		(2)	-4	6
(3)	-2.5	0.2	(4)	-4.5	4.5
(5)	7.1	8.3	(6)	-2	
(7)	1.2	7.6	(8)	-7.4	-0.3
(9)	-3.2	8.2	(10)	-4.8	-0.3

Version 25

(1)	-7	2	(2)	$\emptyset$	
(3)	-2	0.8	(4)	-3.5	0.6
(5)	1.2		(6)	-7	-3.9
(7)	-7.5	-0.7	(8)	-9.8	1.1
(9)	-4.5	4.2	(10)	-5	-0.1