

(1) Factoring

when to use:

- 4 terms (Factor by grouping)
- OR any other equations where you can find factors of $a \cdot c$ that add to b .

#3, 11, , 19

some square roots & CTS can go here also

(2) Square Roots

when to use:

see the variable only 1 time

x^2 or $(x \pm c)^2$

#13, 14, 23, 1, 5, 16, 2

Solving Quadratic Equations

$0 = ax^2 + bx + c$

when to use:

trinomials where $a=1$ and b is an even number.

#22, 6, 7, 17, 8, 10, 9, 15

when to use:

any quadratic of the form $ax^2 + bx + c = 0$

#4, 12, 18, 20, 21, 24 can only be solved using quadratic formula

(3) Completing the Square

(4) Quadratic Formula

Solving Quadratic Equations Sort

Directions: Sort the quadratic equations onto your graphic organizer based on the best method for solving. Think about when you would complete the square, when quadratic formula is appropriate, when to factor, and when to solve by inverse operations.

1 $0 = 2x^2 + 7$	9 $0 = x^2 - 20x + 17$	17 $0 = x^2 - 8x - 13$
2 $0 = \frac{1}{2}(x+5)^2 + 3$	10 $0 = x^2 - 6x + 29$	18 $0 = 2x^2 + 11x + 2$
3 $0 = 3x^2 + 13x + 4$	11 $0 = x^2 + 15x - 100$	19 $0 = 2x^3 + 10x^2 + x + 5$
4 $0 = 4x^2 + 4x - 4$	12 $0 = 2x^2 + 2x - 1$	20 $0 = 3x^2 + 5x + 7$
5 $0 = (2x+5)^2 - 7$	13 $0 = x^2 - 25$	21 $0 = 2x^2 - 7x + 8$
6 $0 = x^2 + 12x + 34$	14 $0 = 49x^2 - 25$	22 $0 = x^2 - 8x - 20$
7 $0 = x^2 + 6x + 9$	15 $0 = x^2 + 16x - 27$	23 $0 = 4x^2 + 36$
8 $0 = x^2 + 14x - 11$	16 $0 = 2(x+3)^2 - 10$	24 $0 = x^2 + 11x - 3$

HW:

Pick 10 equations to solve on a separate sheet of paper. Be sure to practice every method at least twice.