$\qquad$ Date: $\qquad$

# Quadratics Crossword Puzzle 



## Across

2. $y=a x^{\wedge} 2+b x+c$
3. any number in the form a +bi , where $a$ and $b$ are real numbers and $b$ doesn't equal zero
4. an equation that has the radical symbol
5. the linear and quadratic graphs don't intersect and no point satisfies both equations
6. $y=a(x-h)^{\wedge} 2+k$
7. a number without a variable
8. b^2-4ac
9. where the graph crosses the $x$-axis
10. synonym for solution; setting the equation equal to zero to find the value of $x$
11. group $a x^{\wedge} 2+b x$ together and $c$ in a group then add (b/2)^2 to both groups
12. $x=-b$ plus or minus the square root of $b^{\wedge} 2-4 a c$ divided by $2 a$ (a method of solving quadratic equations
13. a number that multiplies by itself to equal a quantity

## Down

1. an algebraic expression that has three terms
2. $f(x)=a x^{\wedge} 2+b x+c$ (represents the parabola)
3. the linear and quadratic graphs intersect at two places (points), which satisfy both equations
4. a line that divides an object in half creating mirror images on either side
5. the linear and quadratic graphs intersect at one point, which satisfies both equations
6. $a x^{\wedge} 2+b x+c$ (can be solved by graphing, factoring, or completing the square)
7. the number in front of (being multiplied by) the variable
8. synonym for solution; where the graph crosses the x -axis
9. the highest point on a graph
10. the lowest point on a graph
11. a u-shaped graph with a minimum or maximum vertex
12. imaginary numbers and real numbers together ( $a+b i$ )
13. $(\mathrm{h}, \mathrm{k})$ can either be a maximum or a minimum
