$\qquad$

# 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. $b^{\wedge} 2-4 a c$
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) ${ }^{\wedge}$ 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 8. the linear and quadratic graphs intersect at one point, which satisfies both equations
5. $a x^{\wedge} 2+b x+c$ (can be solved by graphing, factoring, or completing the square)
6. the number in front of (being multiplied by) the variable
7. synonym for solution; where the graph crosses the x -axis
8. the highest point on a graph
9. the lowest point on a graph
10. a u-shaped graph with a minimum or maximum vertex
11. imaginary numbers and real numbers together ( $\mathrm{a}+\mathrm{bi}$ )
12. $(h, k)$ can either be a maximum or a minimum
