

TRUE OR FALSE

SORT these statements in two columns ... True ... False.
Be ready to support your assertions!

A Some quadratic functions have a range of $(-\infty, \infty)$.	B The vertex of the parabola described by $y = 2(x - 3)^2 + 4$ is $(3, 4)$.
C The parabola represented by $y = -\frac{1}{3}(x + 1)^2 - 4$ has 2 roots.	D The function, $f(x) = x^2 - x - 5$, has a maximum value of $(0.5, -5.25)$.
E The parabola represented by $y = -2(x + 1)(x + 1)$ has a double root at $(1, 0)$.	F The quadratic function represented by $f(x) = 3(x - 4)^2 + 5$ has an axis of symmetry at $x = 4$.
H All quadratic functions have a domain of all real numbers.	I All quadratic functions have at least one x-intercept.
J The graphs of $y = 2x^2 + 4x - 1$ and $y = -3x^2 - 6x - 1$ have the same axis of symmetry.	K The y-intercept of $y = 3x^2 + 2x + 1$ is $(0, 1)$.
L The function, $g(x) = -x^2 + 3x - 1$, opens downward.	M The graph of a quadratic function has a constant rate of change.