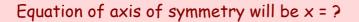
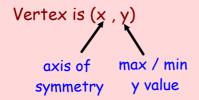
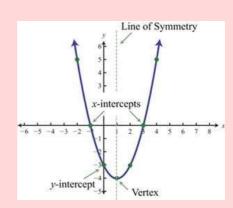
QuadRel.notebook May 10, 2013







```
y-intercept - where graph crosses the y-axis (x = 0)

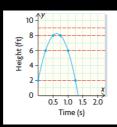
- this is the "c" value in ax^2 + bx + c
```

x-intercept(s) - where graph crosses the x-axis (y = 0) - there can be 0, 1, or 2 x-intercepts

Domain -  $\{x \in ?\}$  Range  $\{y \in ?, y \le \text{max. vertex or } y \ge \text{min. vertex}\}$ 

## Axis of Symmetry

• given 2 points with the same y-coordinate on the parabola, the equation of the axis of symmetry (and then the vertex) can be located by averaging the x-coordinates of these points.



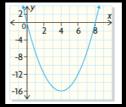
Equation of the axis of symmetry:  

$$x = \frac{0 + 1.25}{2}$$

$$x = 0.625$$

• a table of values and/or a graph can directly reveal the parabola's axis of symmetry

Х	0	1	2	3	4	5
V	-13	-3	3	5	3	-3



Once you have found the axis of symmetry, you have the x value of the vertex. To find the y value, substitute x into the equation.