

# Quadratic Definitions

## 1. Quadratic Function →

↳ in the form  $ax^2 + bx + c$

→ makes the shape of a parabola ↶ or ↷

## 2. Vertex

↳ Max or Min of the quadratic

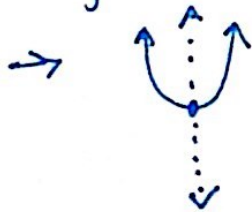
→ center point



## 3. Axis of Symmetry

↳ Vertical line that divides the parabola in half

→ goes through vertex



## 4. Maximum Point

↳ Highest point on the parabola

→ only a max when parabola opens down ↷

→ written in coordinate form  $(x, y)$

## 5. Maximum Value

↳ y-value of max point

## 6. Minimum Point

↳ Lowest point on the parabola

→ Only a min when parabola opens down

→ written as  $(x, y)$

## 7. Minimum Value

↳ y-value of min point

## 8. Vertical Stretch

↳ graph gets narrower

→ From  to 

## 9. Vertical Compression

↳ graph gets wider

→ From  to 

## 10. Horizontal Shift

↳ shift left or right

## 11. Vertical Shift

↳ shift up or down