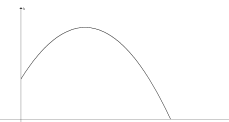
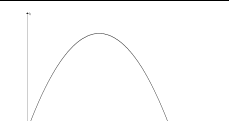


Learning Goals Unit 3 - Graphing Parabolas Using Intercepts

- I can expand and factor.
- I can graph a parabola using x-intercepts and y-intercept.
- I can graph a parabola using “fake” x-intercepts and y-intercept.
- I can make the “Maximum” or “Minimum” statement for a parabola.
- I can analyze an application using “real” or “fake” x-intercepts.

Knowledge & Skills	I have reviewed it	I have done questions	I think I've got this
Expanding			
multiply and monomial by a binomial Ex. $-3x(x - 5)$			
multiply and binomial by a binomial Ex. $(x + 4)(x - 6)$			
Factoring			
Common factoring: Ex. $2x^2 + 8x$ =			
Factor a trinomial: Ex. $x^2 - 3x - 10$ = $(x \quad)(x \quad)$			
Graph parabolas using x- & y-intercepts			
For x-intercepts, set $y = 0$			
For y-intercept, set $x = 0$			
For the vertex, $x =$ halfway between x-intercepts			
Graph and state the maximum or minimum and when it occurs			
Graph using “FAKE” intercepts			
For “fake” x-intercepts, set $y = 0$ - cross out the number			
For y-intercept, set $x = 0$			
For the vertex, $x =$ halfway between “fake” x-intercepts			
Graph and state the maximum or minimum and when it occurs			
Applications			
“sketch” the parabola using the “real” or “fake” x-intercepts and y-intercept (2 types of questions)			
1) “shoot an arrow up” 			
2) “kick the soccer ball from the ground” 			
state the maximum height and when it happens			
state the initial or starting height ($t = 0$)			
determine the height at a given time Ex. When $t = 4$ seconds			