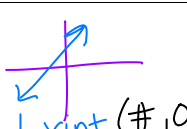

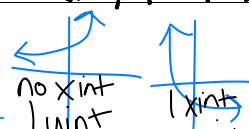
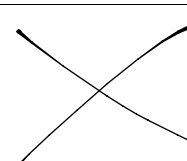
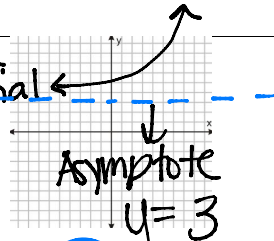
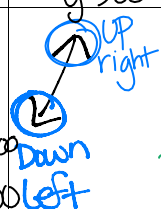
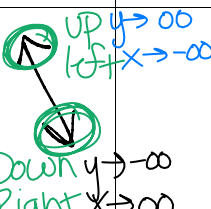
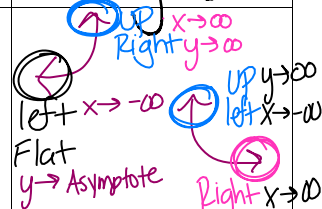


Compare and Contrast

Linear, Exponential and Quadratic Functions

How are the functions below similar or different?

Attribute	<p style="text-align: center;">↖ ↗</p> <p style="text-align: center;">Linear $f(x) = 2x + 3$</p>	<p style="text-align: center;">↻ ↺</p> <p style="text-align: center;">Quadratic $f(x) = 2x^2 + 3$</p>	<p style="text-align: center;">↖ ↗</p> <p style="text-align: center;">Exponential $f(x) = 2^{(x+3)}$</p>
Rate of change	Constant Adding or Subtracting	Double Difference	Multiply Whole & Fractions
Domain & Range	Dom: $(-\infty, \infty)$ Range: $(-\infty, \infty)$	Dom: $(-\infty, \infty)$ Range: $[\#, \infty)$ & $(-\infty, \#]$	Dom: $(-\infty, \infty)$ Range: (Asymptote, ∞)
Intercepts	 1 xint $(\#, 0)$ 1 yint $(0, \#)$	 2 xints 1 yint	 no xint 1 yint
Asymptotes	 $x \rightarrow \infty$ $y \rightarrow \infty$	*Imaginary line that exponential graph does not cross.  Asymptote $y = 3$	
End Behavior	 UP right DOWN left	 UP left UP right	 Flat $y \rightarrow$ Asymptote UP right DOWN left

Flat $y \rightarrow$ Asymptote