Cornell Notes	Topic/Objective:	Name:				
	1.3 Parent Functions & Graph Symmetry	Class/Period:				
Proven Achievement. Lifelong Advantage.	Date:					
Essential Question:						
	I.3 Parent Functions & Graph Symmetry Class/Period: Date:					
	EVEN FUNCTIONS					
	1. Definition: If f(-x) =, then f(1. Definition: If f(-x) =, then f(x) is an even function.				
	2. Graphs: a. The graph of an even fun	ction is symmetric about the				
	This means that both side	s of the y-axis are mirror images of each other.				
	b. If (a,b) is on the graph, s	o is				
	3. An example of an even function: : $f(x)$	$x) = x^2$				
	a. Graph					
	b. Th	b. The points (2,4) and (,) are on the graph.				
	3 2 1 1 X					
	-6 -6 -4 -2 -1 2 4 6 8 -2 -3	x) =				
	ODD FUNCTIONS	If f(-x) =, then f(x) is an odd function.				
	1. Definition: If f(-x) =, then f(
	2. Graphs: a. The graph of an odd func	a. The graph of an odd function is symmetric about the				
	This means that:					
	b. If (a,b) is on the graph, se					
	3. An example of an odd function: : $f(x)$					
	b. Graph					
	b. Th	e points (2,6) and (,) are on the graph.				
	-8 -6 -4 -2 -1 2 4 6 8 -2 -1 -2 -1 -2 -12 -1	x) =				

Questions:	Notes:			
	Parent Function	Graph	Parent Function	Graph
	y = x	× ×	y = x	
	Domain: Range:	······	Domain: Range:	
	End Behavior: $x \rightarrow -\infty, y \rightarrow$ $x \rightarrow \infty, y \rightarrow$		End Behavior: $x \rightarrow -\infty, y \rightarrow x \rightarrow \infty, y \rightarrow y \rightarrow y$	
	$y = x^2$		$y = \sqrt{x}$	
	Domain: Range:	×	, Domain:	
	End Behavior: $x \rightarrow -\infty, y \rightarrow$		Range: End Behavior:	
	$x \to \infty, y \to y = x^3$		$x \to \infty, y \to y = \sqrt[3]{x}$	
	, ' Domain:		, Domain:	
	Range: End Behavior:		Range: End Behavior:	• • • • • • • • • • • • • • • • • • • •
	$\begin{array}{c} x \rightarrow -\infty, y \rightarrow \\ x \rightarrow \infty, y \rightarrow \end{array}$		$\begin{array}{c} x \to -\infty, \ y \to 0 \\ x \to \infty, \ y \to 0 \end{array}$ $y = \log_b(x), \ b \ge 1$	
	y = b ^x , b > 1			
	Domain: Range:	×	Domain: Range:	*******
	End Behavior: $x \rightarrow -\infty, y \rightarrow$ $x \rightarrow \infty, y \rightarrow$		End Behavior: $x \rightarrow 0^+, y \rightarrow x \rightarrow \infty, y \rightarrow y$	
	$y = \frac{1}{x}$		$y = \frac{1}{x^2}$	
	Domain: Range:		Domain: Range:	
	End Behavior: $x \rightarrow -\infty, y \rightarrow$ $x \rightarrow \infty, y \rightarrow$		End Behavior: $x \rightarrow -\infty, y \rightarrow$	
	y = int(x) = [x]		$x \rightarrow \infty, y \rightarrow$ y = C (y = 2 in the graph)	
	Greatest Integer, Neither Domain: (-∞,∞)		Domain:	
	Range: {y: y ∈ Z} (integers) End Behavior:		Range: End Behavior:	
	$\begin{array}{c} x \rightarrow -\infty, \ y \rightarrow -\infty \\ x \rightarrow \infty, \ y \rightarrow \infty \end{array}$		$\begin{array}{c} x \to -\infty, \ y \to \\ x \to \infty, y \to \end{array}$	
ummary:				