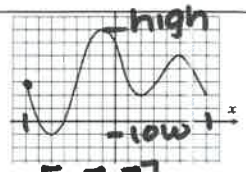
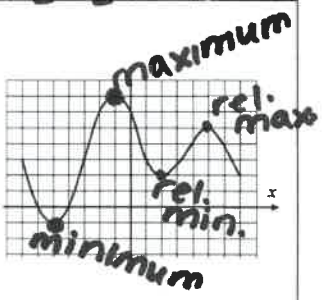
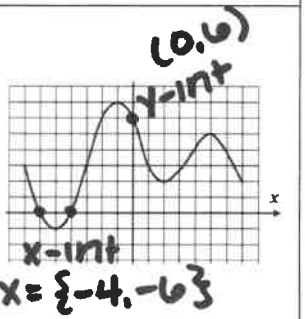
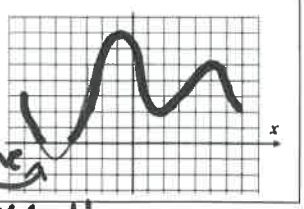
Functions Glossary

Word	Definition	Example/Picture
Function	A relationship in which every input (x) has exactly one output (y).	{(0,2), (1,5), (2,8)}
Function Notation	**f(x) = 3x+2** The way a function is written. F(x) replaces 'y='.	f(2) = 3(2)+2 f(2) = 8
Input	A value substituted IN for an x-value. ['x', 'domain']	f(**2**) = 8
Output	A value substituted for y-value. ['y', 'range']	f(2) = **8**
Domain "How Wide"	The complete SET of x-values used in the function. Left to Right	 x=[-7,7] y=[-1,7]
Range "How Tall"	The complete SET of y-values used in the function. Low to High	
Set Notation	A collection of things (such as domain & range values) listed in { }.	Ex. From #1 X={0, 1, 2} Y={2, 5, 8}
Interval Notation	Represents all values in between two numbers, using (or [for endpoints. Can also be shown as an inequality. [-7,7] → $-7 \leq x \leq 7$	See Example for Domain/Range
Turning Point	Where graph changes direction. (increase/decrease) A max or min value.	
Maximum	The highest point on a graph.	
Minimum	The lowest point on a graph.	
y-intercepts	Where the graph crosses the Y-axis! (where x=0)	 x={-4,-6}
x-intercepts	Where the graph crosses the X-axis (where y=0) also called the ZEROES of the function. (Solutions).	
Zeroes		
Positive	Where the graph is above the x-axis (in the POSITIVE y-values).	
Negative	Where the graph is above the x-axis (in the NEGATIVE y-values).	only negative from $-6 < x < -4$