Integrated 1

Name Key

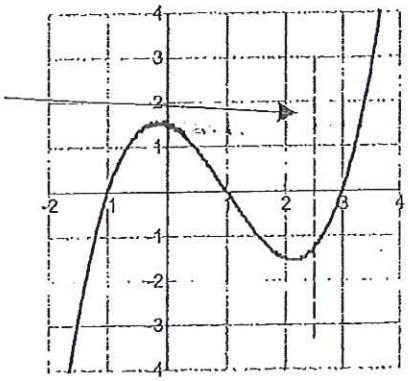
Recognizing Functions

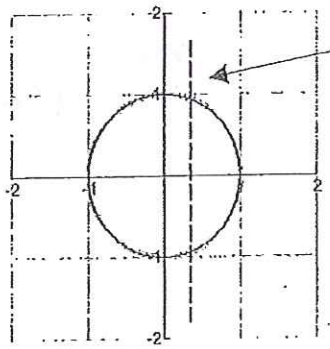
A function is a relationship in which each value of the independent (control) variable determines exactly one value of the dependent variable.

Vertical Line Test: A graph with the independent variable on the horizontal axis represents a function if no vertical line meets the graph in more than one place.

No two points lie on the same vertical line

This graph represents a function





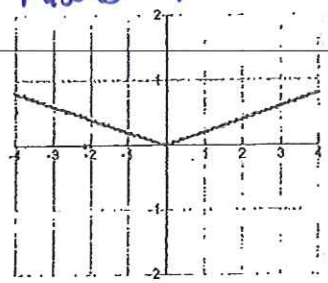
Two points lie on the same vertical line

This graph **does not** represent a function

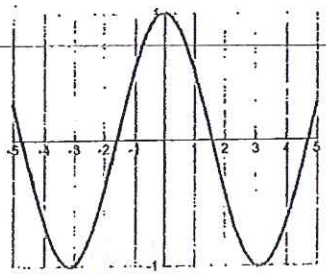
Tell whether each graph represents a function when x is the independent variable. **Explain how you know.**

VLT = Vertical Line Test

1. Yes
Passes VLT

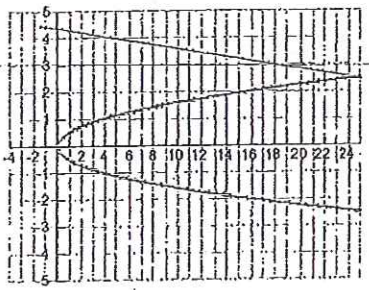


2.



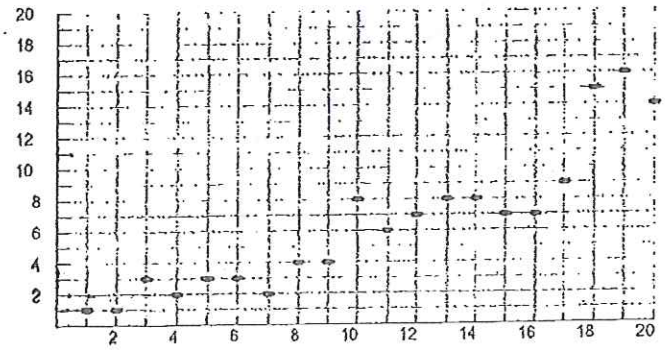
Yes
Passes VLT

3.



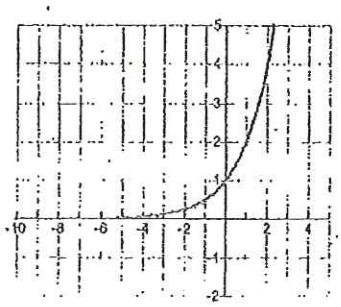
No
Fails VLT

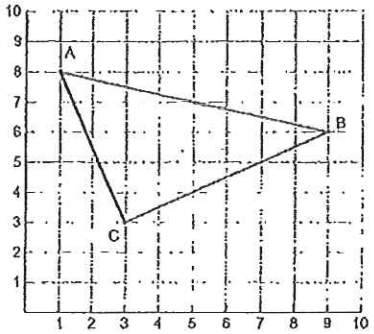
4. Could this graph be represented with a function?

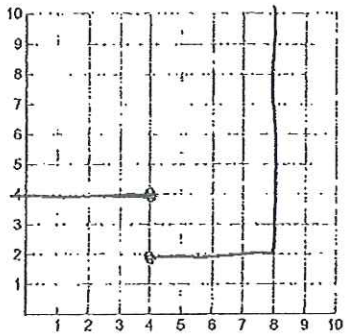


Yes
Passes VLT

5. 6. 7.





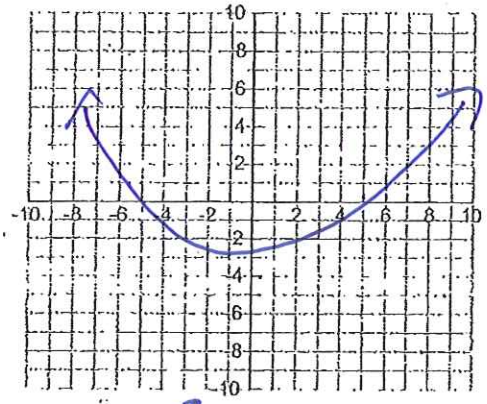
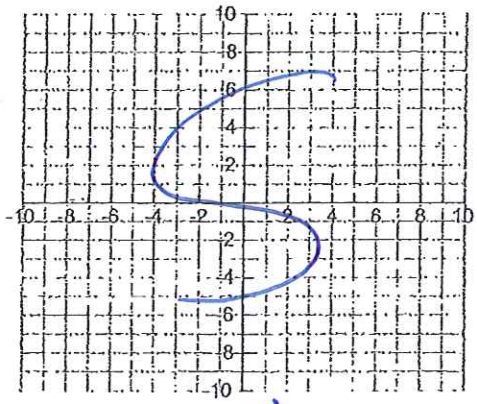


Yes
Passes VLT

NO
Fails VLT

NO
Fails VLT

Draw two graphs that are functions and two graphs that are not functions. Explain below how you know each of the graphs can be represented by a function or not.

Function Graphs	Non-Function Graphs
	
Passes VLT	Fails VLT