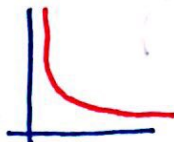Math IA Unit 3A
Interpreting Graphs

Name _____

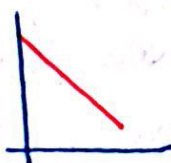1) Sketch a graph of a continuous function to fit each description.

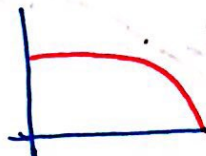a) always increasing with a faster and faster rate of change

b) decreasing with a slower and slower rate of change, then increasing with a faster and faster rate of change
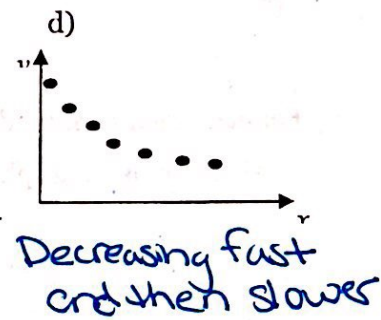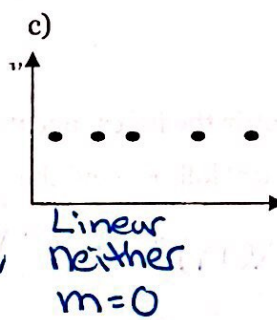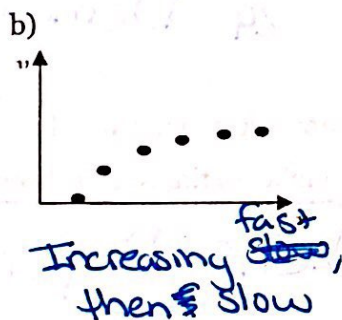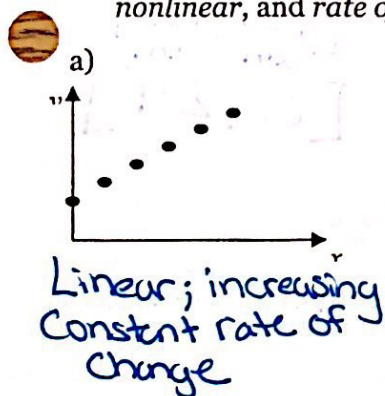
c) linear and decreasing

d) decreasing with a faster and faster rate of change

2) Describe each of these discrete function graphs using the words *increasing, decreasing, linear, nonlinear,* and *rate of change.*

a)

Linear; increasing
Constant rate of
Change

b)

fast
Increasing ~~slow~~,
then ~~§~~ slow

c)

Linear
neither
m=0

d)

Decreasing fast
and then slower

3) Sketch a discrete function graph to fit each description.

a) always increasing with a slower and slower rate of change

b) linear with a constant rate of change equal to zero

c) linear and decreasing
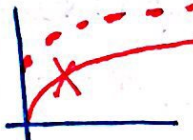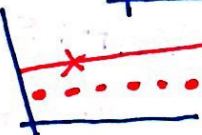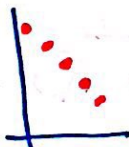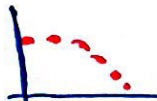
d) decreasing with a faster and faster rate of change

Adapted from *Discovering Algebra: An Investigative Approach* by Murdock, Kamischke, and Kamischke

4) This graph shows Anne's blood pressure level during a morning at school. Give the points or intervals when her blood pressure . . .
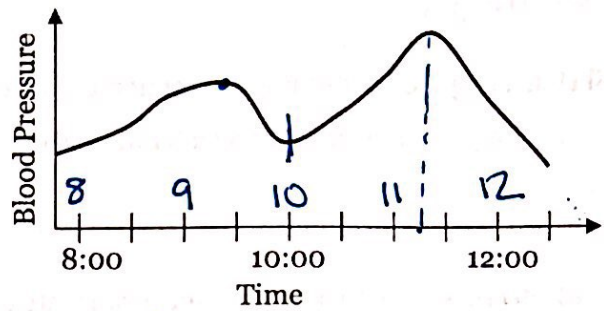
a) reached its highest point.

11:15
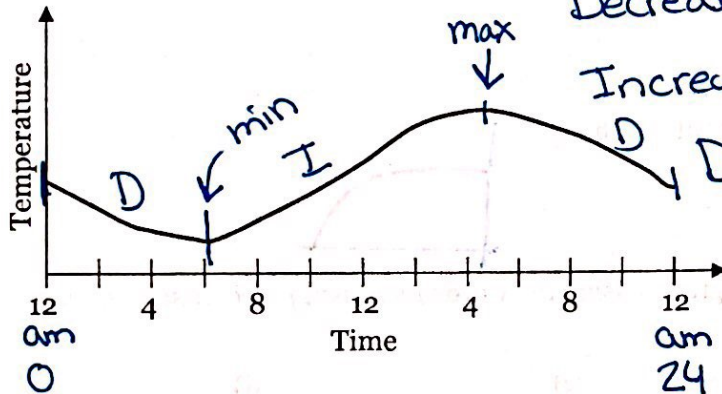
b) was rising the fastest.

$(10:00, 11:15)$

c) was decreasing.

$(9:30, 10:00) \cup (11:15, 12:30)$

5) This graph shows the air temperature in a 24-hr period from midnight to midnight. Write a description of this graph, giving the intervals as the temperature changed.

Decreases $(12, 6)$

Increases $(6, 4)$

Decrease $(4, 12)$

max: 4:00 pm

min: 6:00 am

Domain: $[12_{am}, 12_{am}]$

$[0, 24]$

6) For each relationship identify the independent and dependent variables.

a) the mass of a spherical lollipop and the number of times it has been licked.

Independent: # of licks   Dependent: mass

b) the number of scoops in an ice cream cone and the cost of the cone.

Independent: # of scoops   Dependent: cost

c) the distance a rubber band will fly and the amount you stretch it before you release it.

Independent: stretch   Dependent: distance

d) the number of coins you flip and the number of heads.

Independent: # of flips   Dependent: # of heads

Adapted from *Discovering Algebra: An Investigative Approach* by Murdock, Kamischke, and Kamischke