

9/26 Algebra-Downing

Unit 2 - Day 2 Functions

Bellwork - NB Quiz

Linear Function - graph is a straight line

- x and y values have a constant rate of change (+ or -)

- Equation can be written in the form $y = mx + b$

Linear



X	3	6	9	12
Y	36	30	24	18

+3 +3 +3
-6 -6 -6

X	1	2	3	5
Y	2	5	8	14

+1 +1 +2
+3 +3 +6

slope = $\frac{\text{change in } y}{\text{change in } x} = \frac{3}{1} \quad \frac{6}{2} = \frac{3}{1}$

$y = \frac{1}{2}x + 5$ $y = 3.8$
 $y = 6(x-1)$ $y = \frac{3x}{5}$
 $y = x + 9$

Nonlinear



X	1	3	5	7
Y	2	9	20	35

+2 +2 +2
+7 +11 +15

X	1	2	3	4
Y	2	6	18	54

$y = \sqrt{x}$ $y = 3^x$

$y = \frac{2}{x}$ $y = 5 - 2x^2$
 $x^2 - y = 0$

HW: p. 117 #5-14
18-28 even

Discrete and Continuous Domains

A discrete domain is a set of input values that consist of only certain numbers in an interval



A continuous domain is a set of input values that consist of all numbers in an interval

