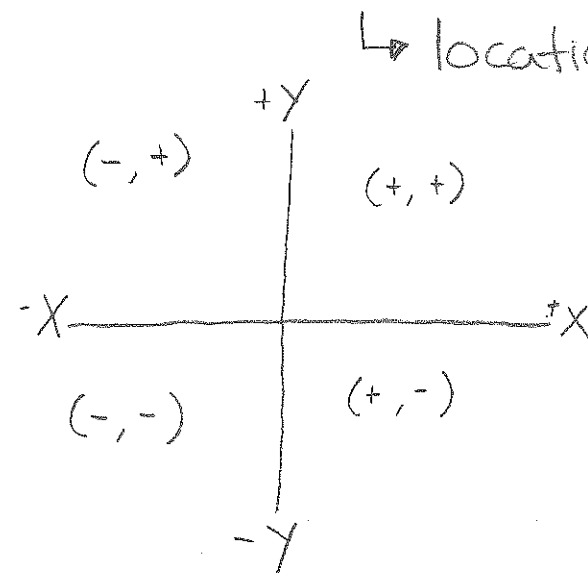


Review

Coordinates/Ordered Pairs



↳ location of a point on a graph/grid

↳ Always written (x, y)
 (x first, then y)

X: ↔ L/R (horizontal)

Y: ↑↓ up/down (vertical)

[Z: ↗↘ in/out] comes later

New

Relation: two data sets that R associated

Set: a collection of objects (often R numbers)

Table of Values: a table w/ values for 2 variables (x, y)

Relation: $3x + 2 = y$

X domain in independent	Y range out dependant		
+1 < 0	2 >+3	when x is zero, y is 2	$3(0) + 2 = y$
+1 < 1	5 >+3	when x is one, y is 5	$3(1) + 2 = y$
+1 < 2	8 >+3	when x is two, y is 8	$3(2) + 2 = y$
+1 < 3	11 >+3	when x is three, y is 11	$3(3) + 2 = y$

Linear Relation: when the change in input (x) is constant (+1)
 (straight line) ∴ the change in output (y) is constant (+3) 6

Ex 1 Write a Table of Values (T.O.V) for the relation $c = 11 + 2n$; pizza costs \$11 plus \$2 for each topping
 $n = \#$ of toppings
 $c = \text{cost}$

HW

A
4, 5, 6

B
8, 9, 10

C
11, 12, 13

1) write the relation and set-up table

$$c = 11 + 2n$$

n	c
0	$11 + 2(0) = 11$
1	$11 + 2(1) = 13$
2	$11 + 2(2) = 15$
3	$11 + 2(3) = 17$

* the cost (c) depends on the # of toppings (n) \therefore
 $c = \text{dependant (y)}$
 $n = \text{independant (x)}$

2) fill in values, start @ 0 unless told otherwise

Ex 2 The Equation of a Linear Relation is $y = -5x - 3$. Some ordered pairs in the relation R: $(0, -3), (1, -8), (2, -13), (3, ?), (4, -23), (? , -28)$. Find the missing values!

a) Table of Values

$$y = -5x - 3$$

x	y
0	-3
1	-8
2	-13
3	-18
4	-23
5	-28

or b) calculate using Algebra

$(3, ?)$ you know x \therefore

$$y = -5(3) - 3$$

$$y = -15 - 3$$

$$y = -18 \quad \boxed{(3, -18)}$$

$(?, -28)$ you know y \therefore

$$-28 = -5x - 3$$

$$\begin{array}{r} -28 \\ +3 \\ \hline -25 \end{array} = -5x \quad \begin{array}{r} -3 \\ +3 \\ \hline 0 \end{array}$$

$$\begin{array}{r} -25 \\ \div -5 \\ \hline 5 \end{array} = x$$

$$\boxed{5 = x} \quad \boxed{(5, -28)}$$