PENANG SANGAM HIGH SCHOOL
P.O.BOX 44, RAKIRAKI
Week 8

Year/Level: 12 **Subject:** Mathematics

Strand	3
Sub Strand	3.1.1
Content Learning Outcome	Students should be able to: • Draw straight line graphs

Lesson Notes

Revision Of Linear Graphs

General equation: $y = mx + c$

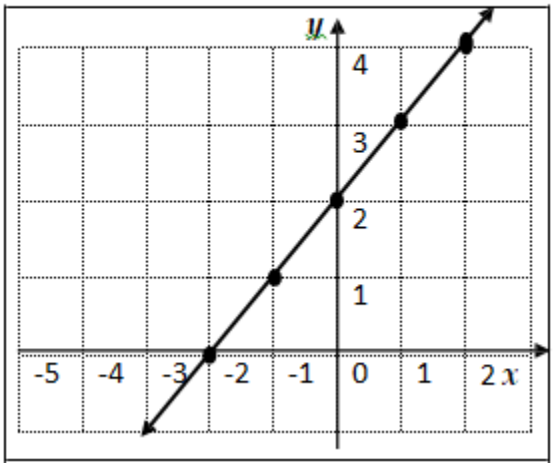
Where m= gradient
c =y -intercept

Steps to draw

Method 1: using table of values

EXAMPLE 1: Sketch the graph of $y = x + 2$
Using tables Take some x – values, i.e, positive and negative numbers.
Substitute those x values to find y

x	$y = x + 2$	(x, y)
-2	$-2 + 2 = 0$	(-2, 0)
-1	$-1 + 2 = 1$	(-1, 1)
0	$0 + 2 = 2$	(0, 2)
1	$1 + 2 = 3$	(1, 3)
2	$2 + 2 = 4$	(2, 4)

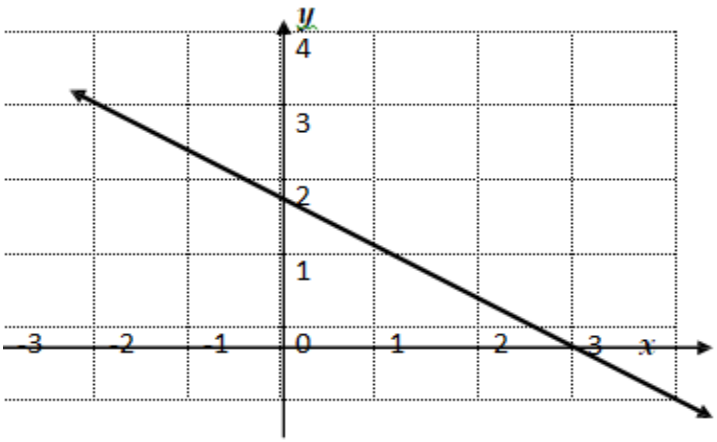


Method 2: Intercepts

i. Find the x intercept (let y=0)
ii. Find the y intercept (let x=0)
iii. Plot the points and join to form a straight line.

EXAMPLE: Sketch the graph of $3y + 2x = 6$

Using Intercepts

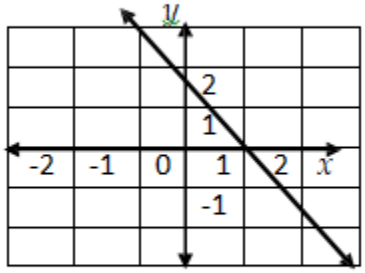


To find x – int, let y = 0:
Substitute 0 in place of y & solve
$3(0) + 2x = 6$
$2x = 6$
$\therefore x\text{-}int = 3$

To find y – int, let x = 0:
Substitute 0 in place of x & solve
$3y + 2(0) = 6$
$3y = 6$
$\therefore y - int = 2$

Activity Exercise 28-(Page 92)

1. Find the equation of the graph:



2. Sketch the following graphs:

a) $y = -x + 1$

b) $x + 2y = 15$

c) $2y = 4x - 6$

d) $y - 3 = x$