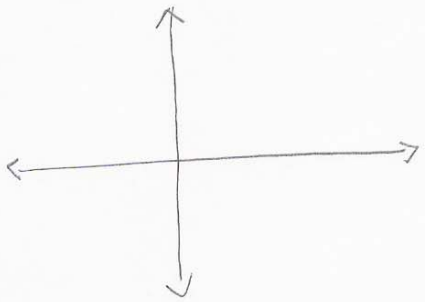
Chapter 3:1

Graph -

Rectangular Coordinate System -



origin -

x-axis -

y-axis -

quadrants -

Ordered Pairs -

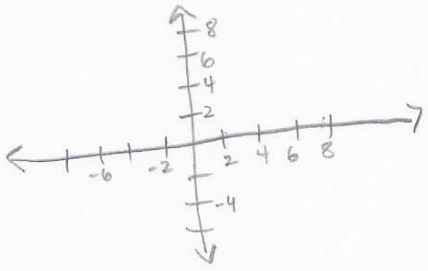
abscissa -

ordinate -

Method To plot a point

1.
2.
3.

(Eg) Plot (4,6),
(-3,5),
(7,-2),
(-6,-8),



Linear Equations in Two Variables

Solutions of Linear Equations

(Eg) Determine if $(3,5)$ is a solution of the equation $2x-5y=12$.

(1) Is $(2,-6)$ a solution of the equation $6x+2y=0$.

(Eg) Complete the table of values for $4x+3y=24$.

x	y
0	
	0
2	
	-12

Chapter 3.2

Plotting Equations of Lines -

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Method Multi Point Method of Plotting

1.
2.
3.
4.
5.
6.

(Eg) Graph $2x+7y=14$.

(Eg) Graph $3x-7y=21$

Intercepts -

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Method Intercept Method of Plotting

1.
2.
3.
4.
5.

(Eg) Graph $4x+5y=20$

Method Plotting Equations of type $ax+by=0$

1.
2.
3.
4.

(Eg) Graph $7x-2y=0$.

(Eg) Graph $3x+8y=0$.

Horizontal lines $by=c$

-
-
-
-

(Eg) Graph $y=5$

Vertical Lines $ax=c$

-
-
-
-

(Eg) Graph $x=-3$

Chapter 3.3 The Slope of A Line

Slope -

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(Eg) A line has a rise of 12 and a run of 7. What is the slope?

Slope

(Eg) What is the slope of a line that connects the points (3,9) and (5,6)?

(Eg) What is the slope of a line that connects the points (-2,7) and (5,-9)?

Values of the slope

1. positive
2.
3. negative
4. zero

(Eg) Show that the slope of a horizontal line is zero.

(Eg) Show that the slope of a vertical line is undefined.

(Eg) What is the slope of $2x+7y=14$?

Special lines

1.

(Eg) $3x+y=6$
$3x+y=3$

2.

(Eg) $3x-y=4$
$x+3y=9$

(Eg) Are the lines below parallel, perpendicular, or neither?

$3x+4y=12$
$5x-2y=10$

Chapter 3.4 Equations of a line

Standard form

Slope-Intercept Form

Method Changing linear forms

=
-

(Eg) Determine the slope & y-intercept of $y = \frac{3}{4}x - 6$

(Eg) Determine the slope & y-intercept of $7x - 8y = 43$

Method Graphing using Slope-Intercept

1.
2.
3.
4.
5.

(Eg) Graph $y = \frac{3}{4}x - 6$

(Eg) Graph $7x + 3y = 21$

① Graph $5x + 4y = 20$

Method Plot knowing 2 points

1.
2.
3.
4.
5.

(Eg) Write the equation of a line passing through (3,7) & (-4,9).

① Write the equation of a line passing through (2,5) & (6,-7).

Point-Slope form -

(Eg) Determine the equation of a line with slope of -3 & passing through point (-3,8)

Method Knowing 2 Points

1.
2.
3.
4.

(Eg) Determine the eqn of a line passing through (-2,8) & (4,9).