



Grade 09

Mathematics

Unit : 20 - Graphs

Answer all the questions.

- 1) Find the corresponding y coordinates for the given x coordinates in the followings and write them in ordered pairs.

i) $y = 4x$ (x values – 2, – 1, 0, 1, 2)

ii) $y = x + 5$ (x values – -8, -7, -6, -5, -4, -3, -2)

iii) $y = -\frac{2}{3}x + 1$ (x values – -6, -3, 0, 3, 6)

iv) $y = 1.5x - 4$ (x values – 2, 0, 2, 4, 6)

- 2) Mention the gradients and intercepts of following functions.

i) $y = 2x + 3$

ii) $y = -3x + 5$

iii) $3y = 2x - 6$

iv) $2y - 6x = 7$

- 3) Write the function of the graphs with following gradient and intercepts.

i) $m = 2, C = 3$

ii) $m = -3, C = 5$

iii) $m = \frac{3}{2}, C = 1.5$

iv) $m = -\frac{5}{3}, C = 3$

Part II

- 1) Complete the following table to draw the graph of the function $y = \frac{5}{3}x$

x	-6	-3		3	6
y		-5	0		10

- i) Draw the graph using above table.
 - ii) Find the value of y when $x = 1$ using the graph.
 - iii) Mention the co-ordinates of 3 points on the graph.
- 2) Draw the graphs of following functions on the same coordinate plane by preparing suitable value tables.
- i) $y = 3x$,
 - ii) $y = 3x + 1$
 - iii) $y = 3x - 1$
- 3) i) Write equations of 3 lines parallel to $y = -2x + 3$
- ii) Sketch them on the same co-ordinate plane.
- 4) i) Draw the graphs of followings on the same co-ordinate plane.
 $y = 2x + 3$, $y = 2x - 3$, $y = -2x + 3$, $y = -2x - 3$
- ii) Mention the intersection points of the lines.
- iii) What is the figure you obtained by drawing above lines?