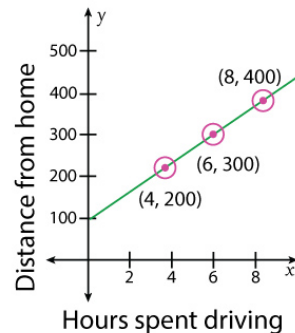


# Effects of Changing Slope on y-intercept

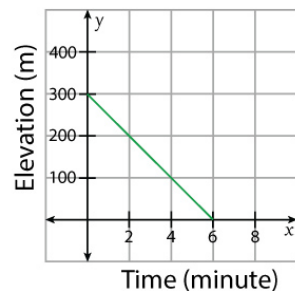
- 1 A linear equation in slope-intercept form is given as  $y = 2x + 6$ .
- What is the y-intercept of this equation?
  - What is the slope of the given line?

- 2 Melina's car is parked 100 km from her home. She is driving away from her home at a speed of 50 km/hour. The relation between distance and time is given by a line in the graph. What amount of time will she spend driving if the y-intercept of the graph is increased by 100 and the distance he needs to cover is 500 km?



- 3 The line graphed below represents the elevation of a car as it drives down a hill.

- When will the slope of the line be doubled?
  - When the hill would be twice as tall
  - When the hill would be half as tall
  - When the car will move twice as fast
  - When the car will move half as fast



# Effects of Changing Slope on y-intercept

1 A linear equation in slope-intercept form is given as  $y = 2x + 6$ .

- a) What is the y-intercept of this equation?
- b) What is the slope of the given line?

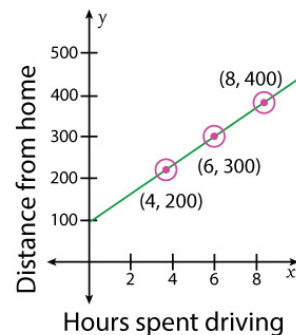
a) 6

b) 2

2 Melina's car is parked 100 km from her home. She is driving away from her home at a speed of 50 km/hour. The relation between distance and time is given by a line in the graph.

What amount of time will she spend driving if the y-intercept of the graph is increased by 100 and the distance he needs to cover is 500 km?

8 hrs



3 The line graphed below represents the elevation of a car as it drives down a hill.

a) When will the slope of the line be doubled?

- i) When the hill would be twice as tall
- ii) When the hill would be half as tall
- iii) When the car will move twice as fast
- iv) When the car will move half as fast



a) i) When the hill would be twice as tall