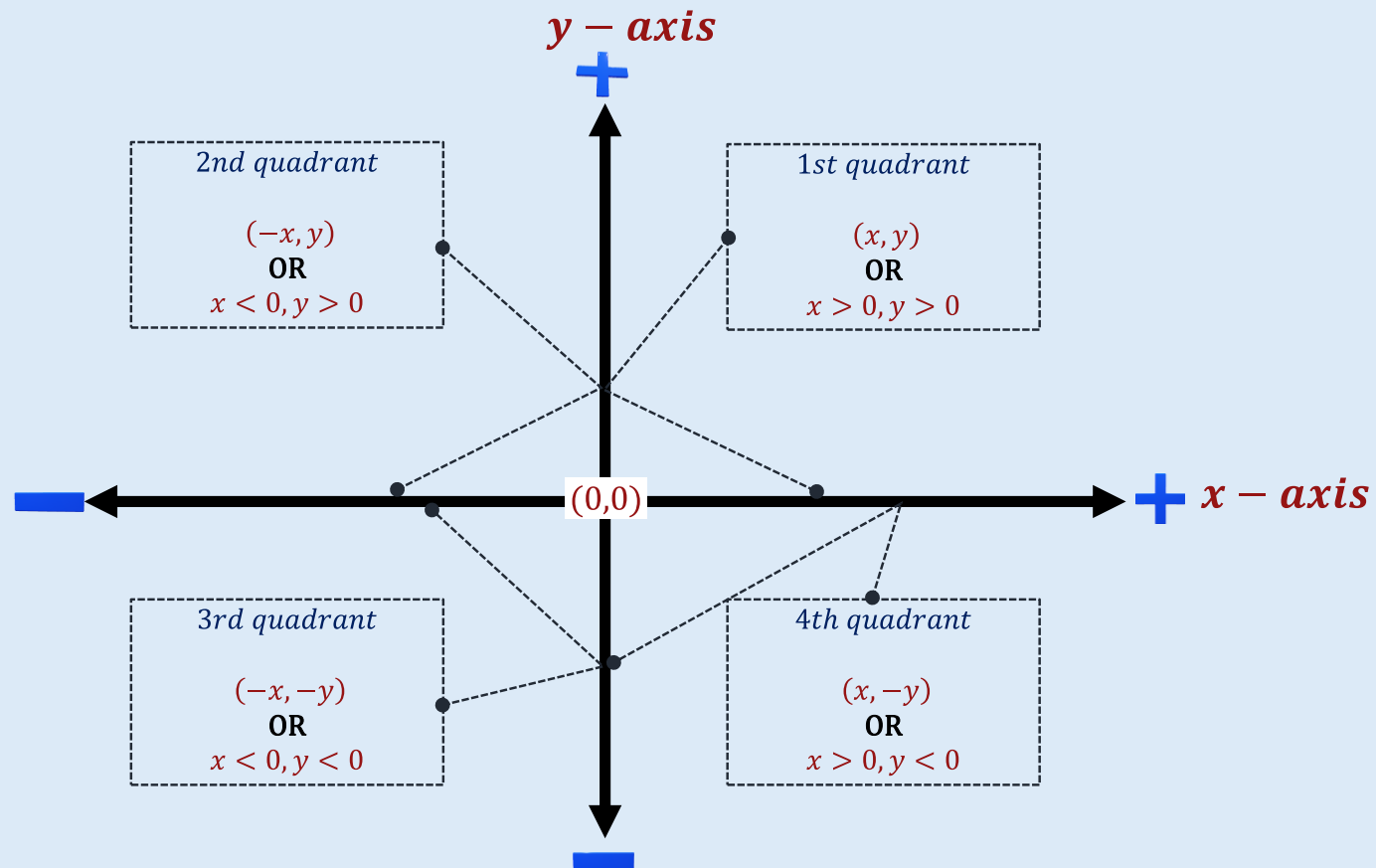


# Chapter 4

## Coordinate Geometry I



**Fig. 4-1: Cartesian coordinate system with four quadrants illustrated.**



**Fig. 4-2: Locating the coordinates of a given point.**

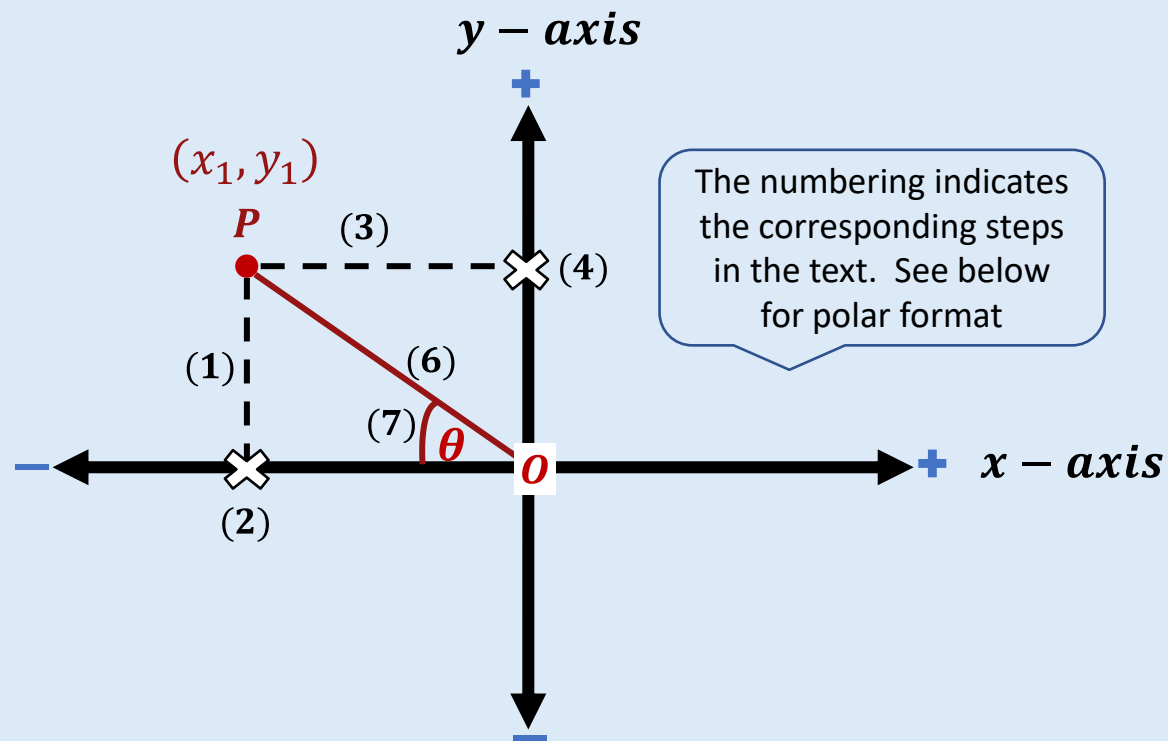


Fig. 4-3: Example 1.

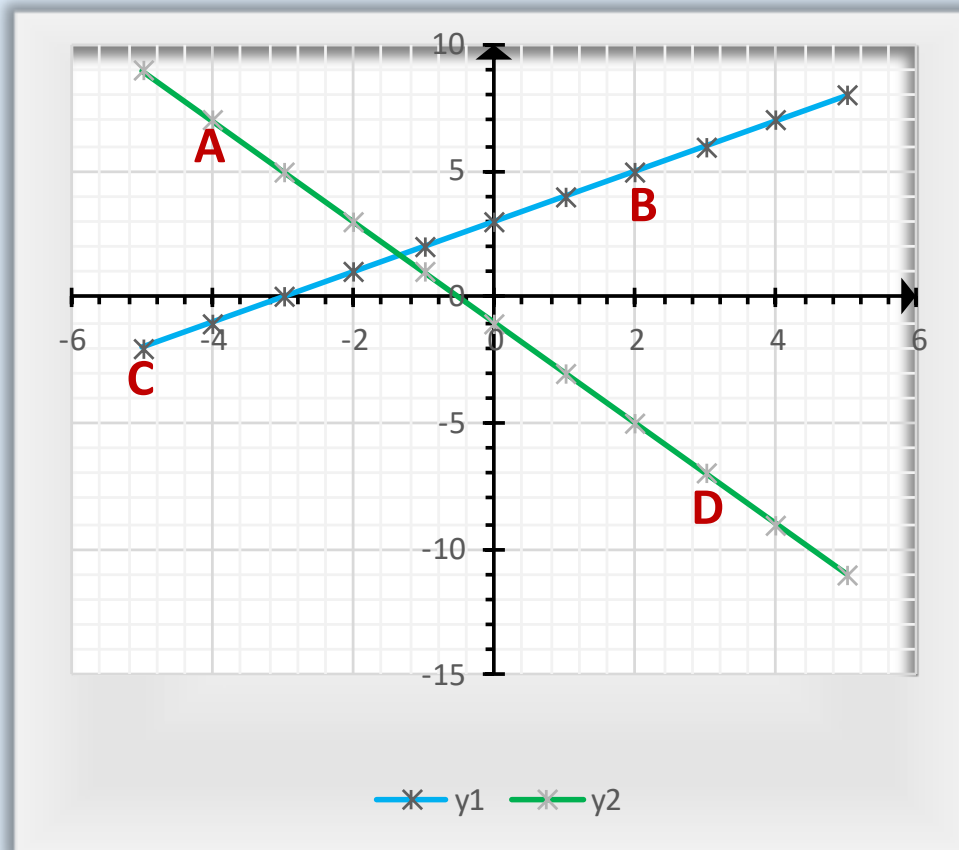


Fig. 4-4: Solution to Example 1(a).

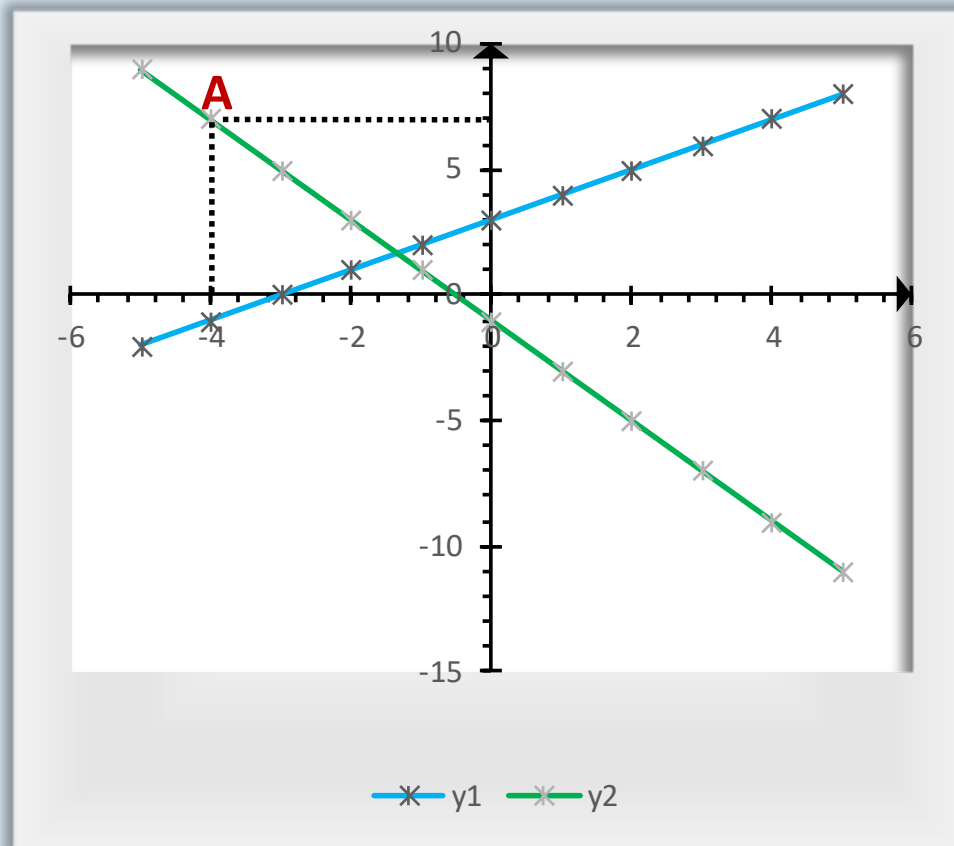


Fig. 4-5: Solution to Example 1(b).

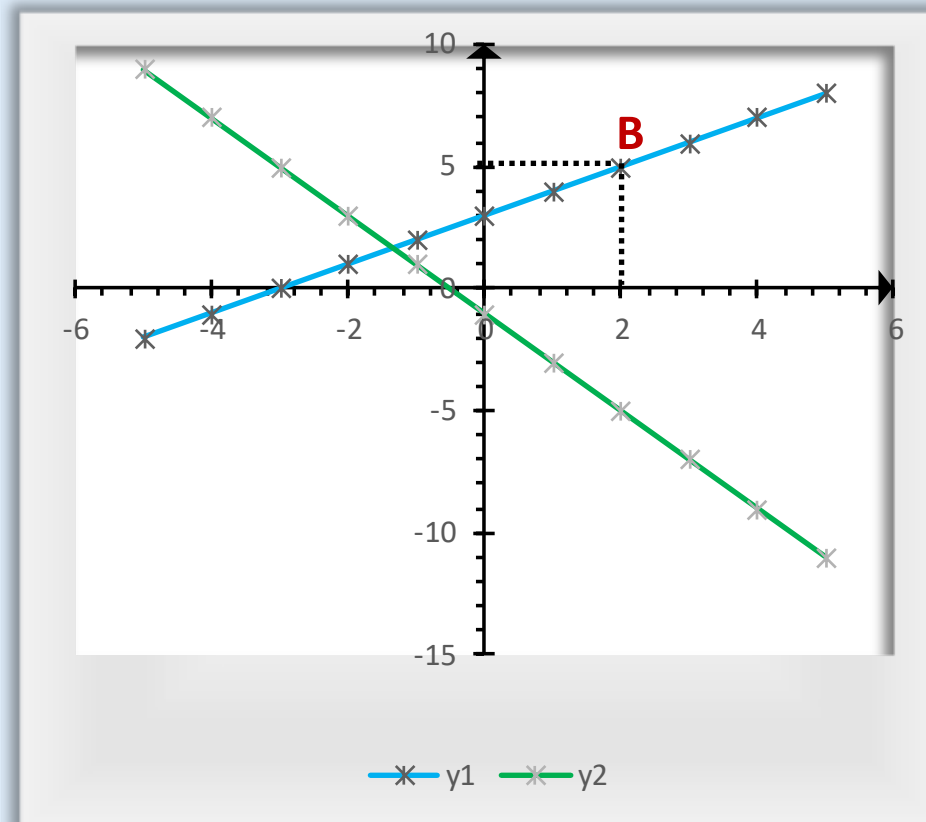


Fig. 4-6: Solution to Example 1(c).

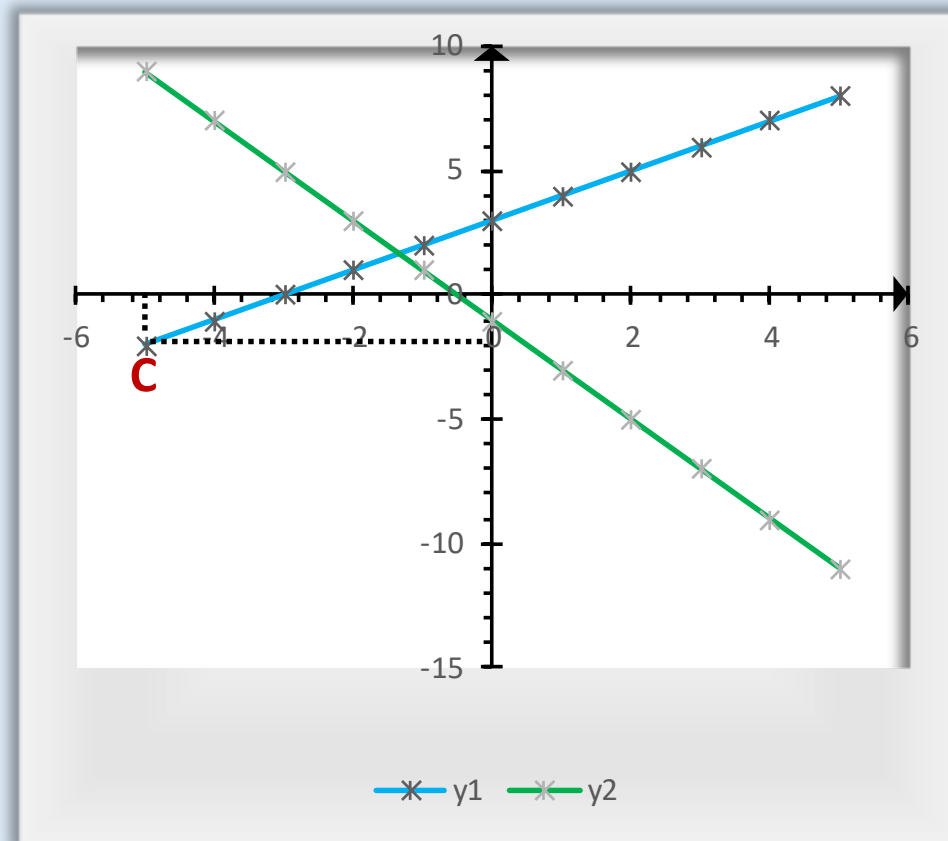
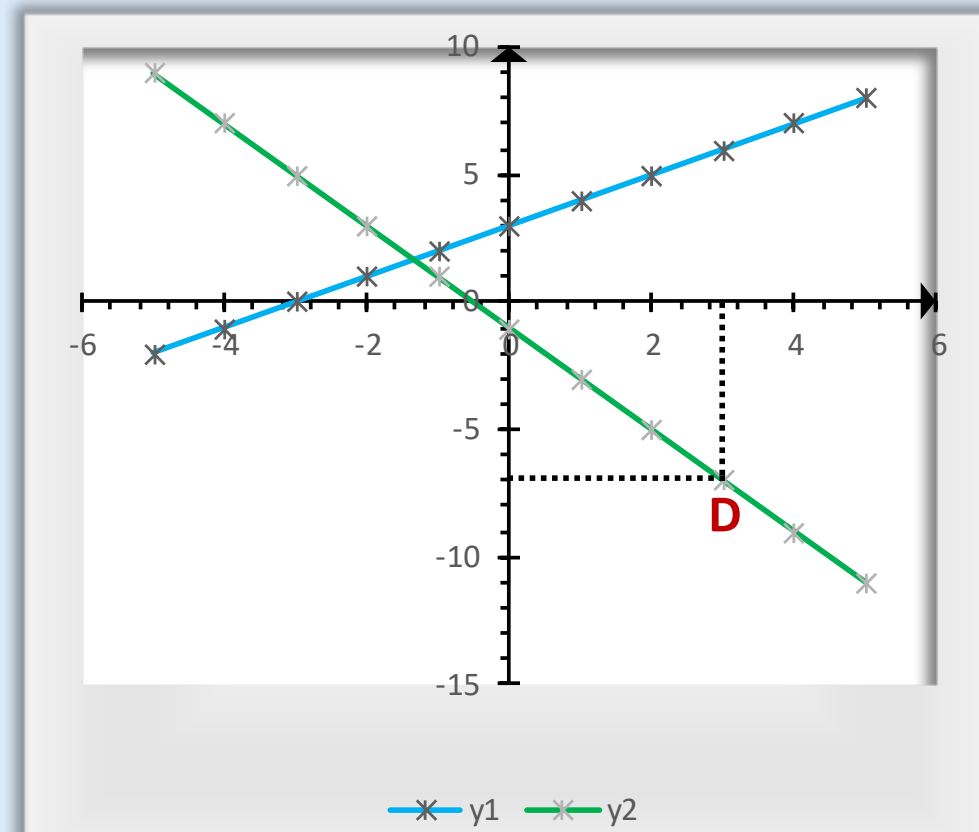


Fig. 4-7: Solution to Example 1(d).





**Fig. 4-8: Mid-point of a line segment illustrated.**

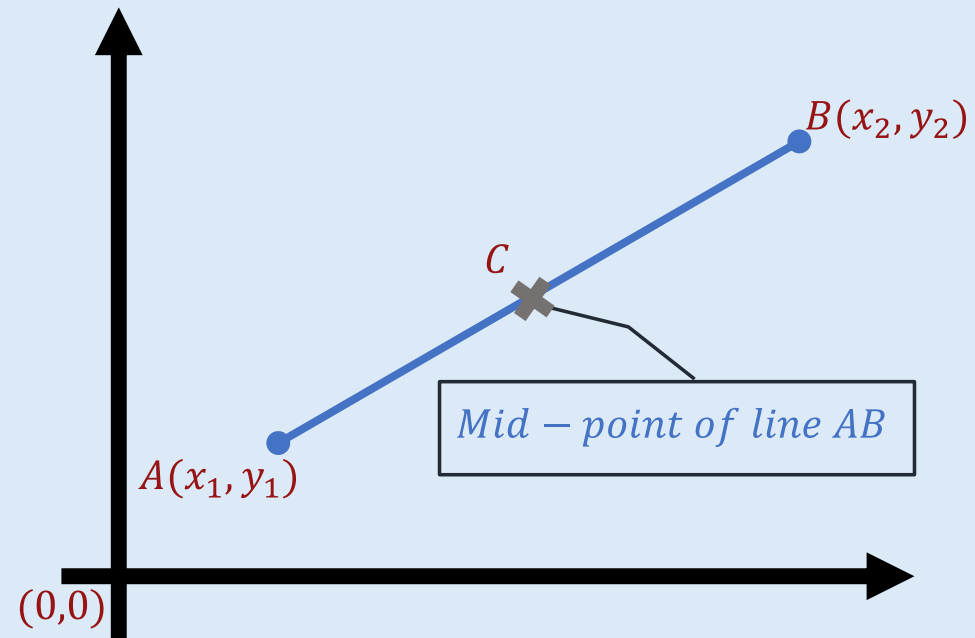


Fig. 4-9: Distance between two points illustrated.

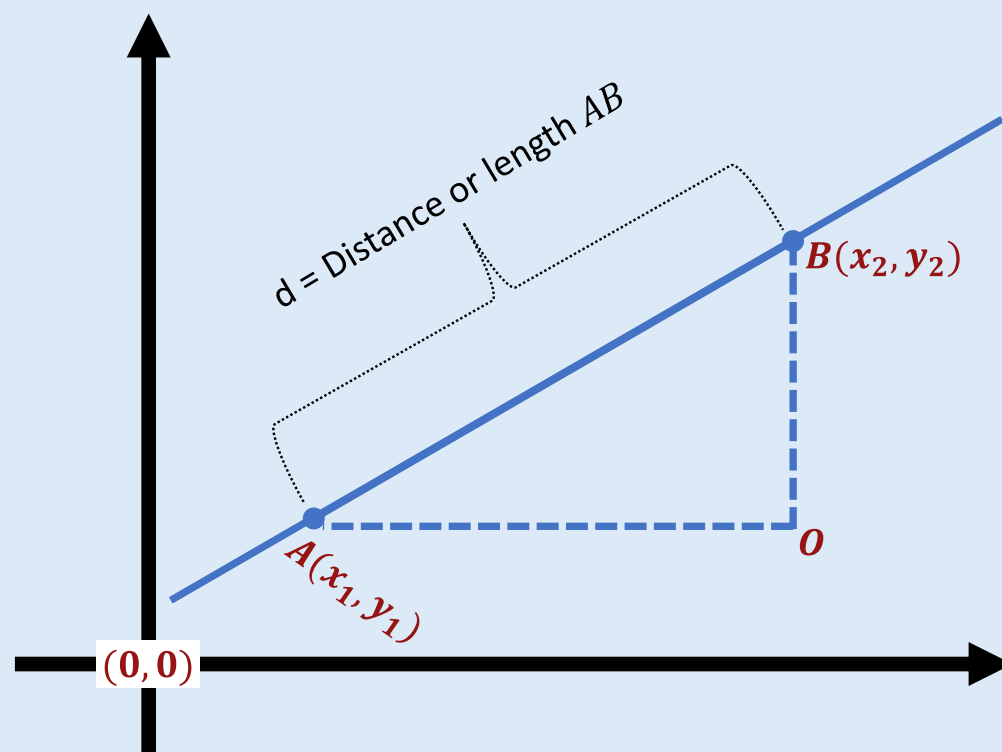


Fig. 4-10: Solution to Example 5.

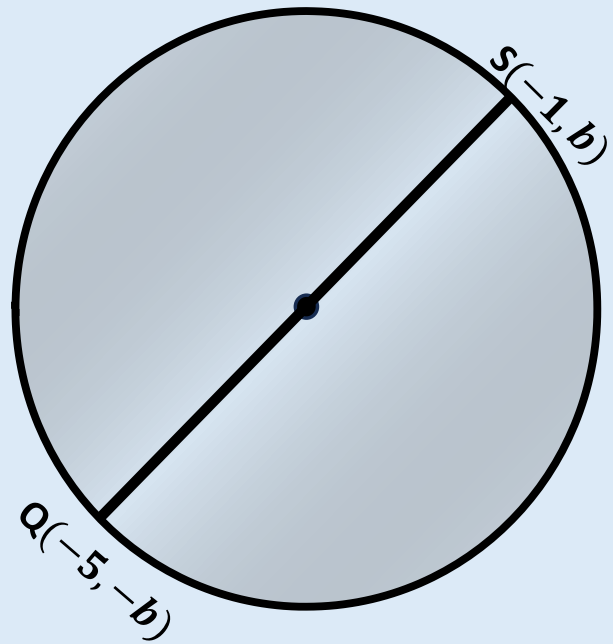
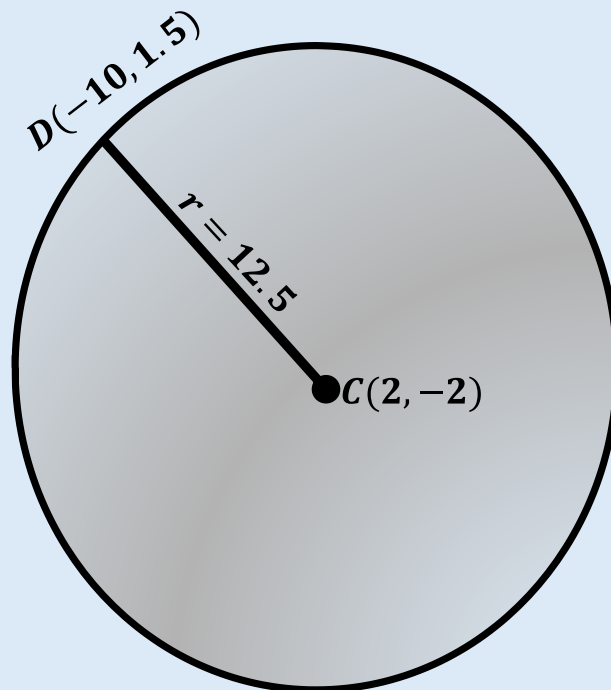
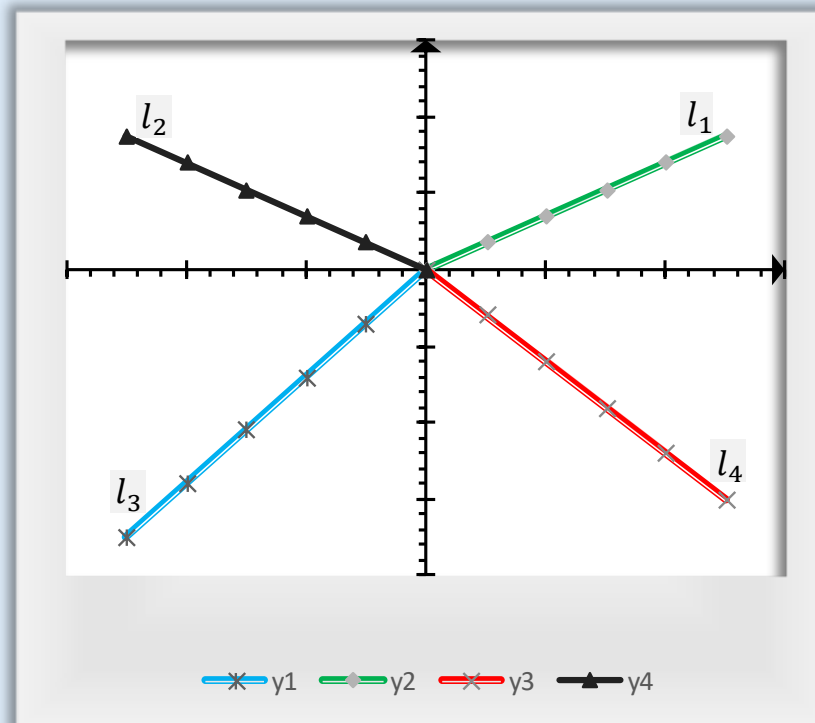


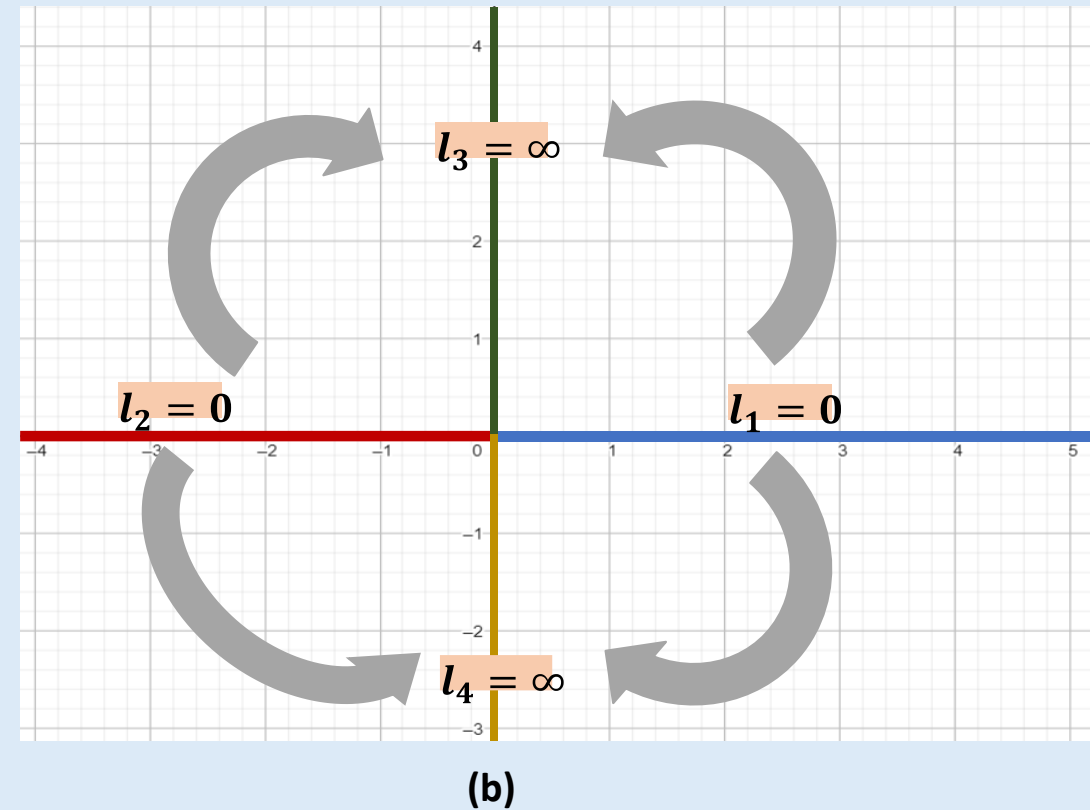
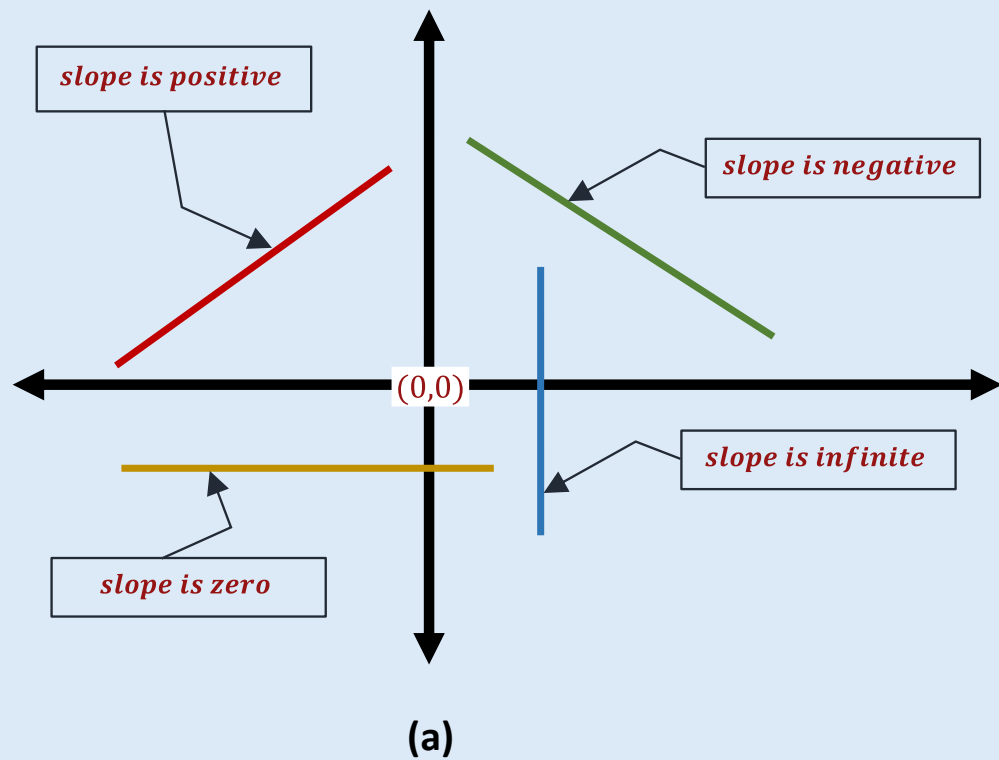
Fig. 4-11: Solution to Example 6.



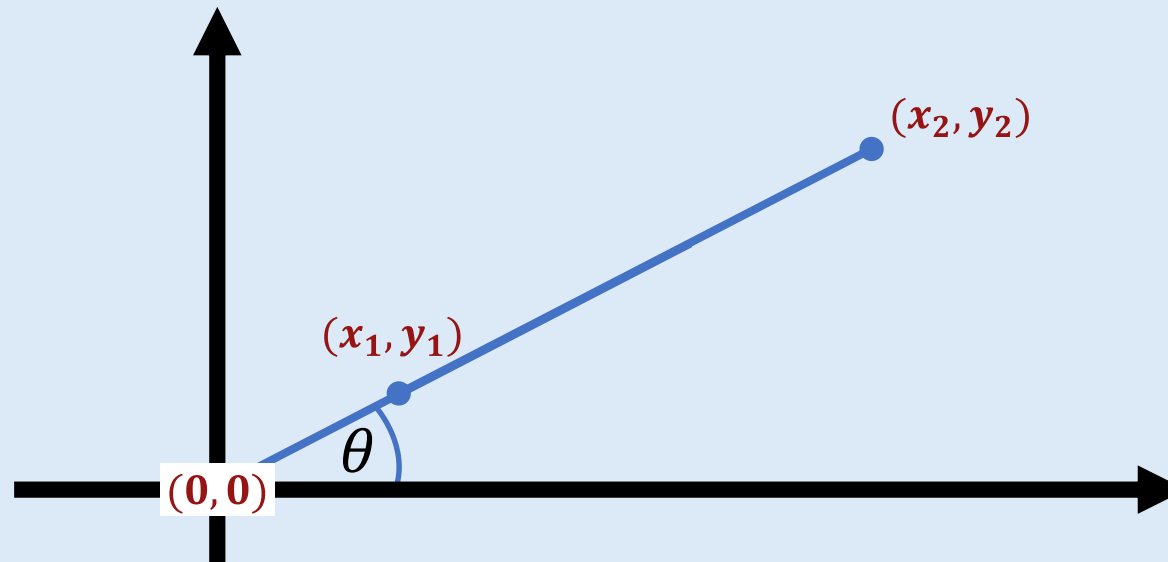
**Fig. 4-12: Positive and negative slopes of a line illustrated.**



**Fig. 4-13: Slope of a line: (a) four situations showing – a slope of zero (horizontal line), a slope of infinity (a vertical line), a positive slope and a negative slope, (b) shows how the slope of a line changes from a zero value to infinity (as it is turned from being parallel to the x-axis to being parallel to the y-axis in each of the four quadrants).**



**Fig. 4-14: Coordinates of two points used to calculate the slope illustrated.**



**Fig. 4-15: Slope of curves.**

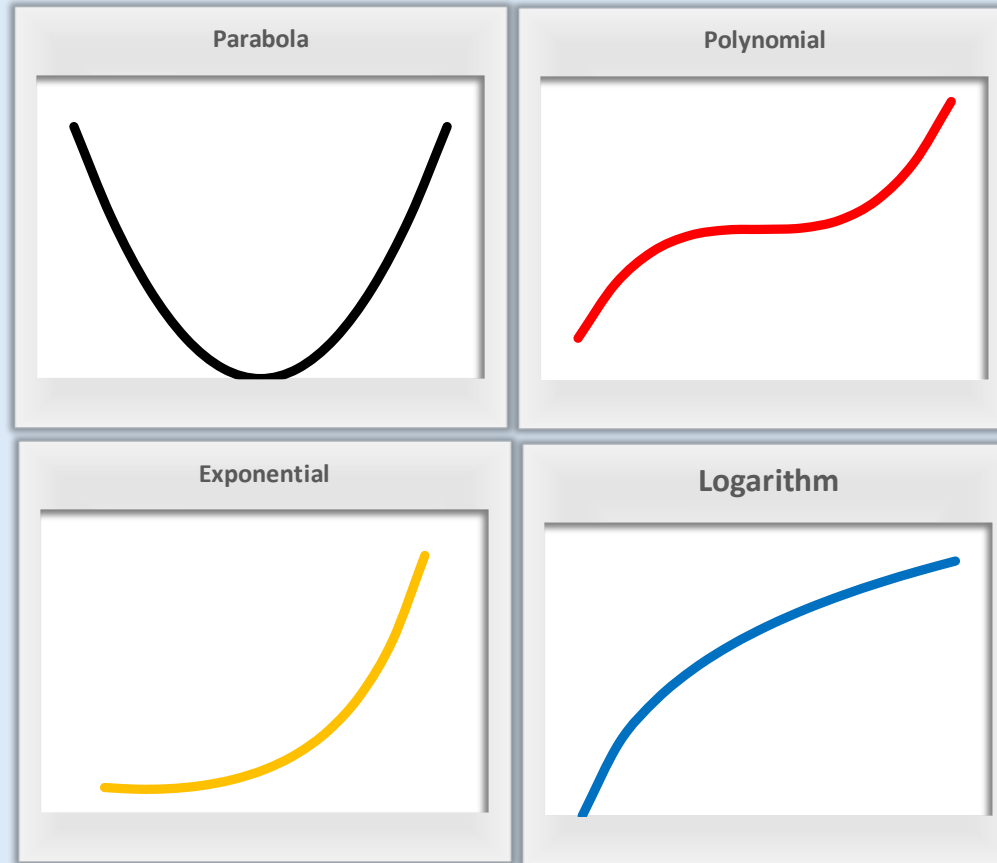




Fig. 4-16: Example 9.

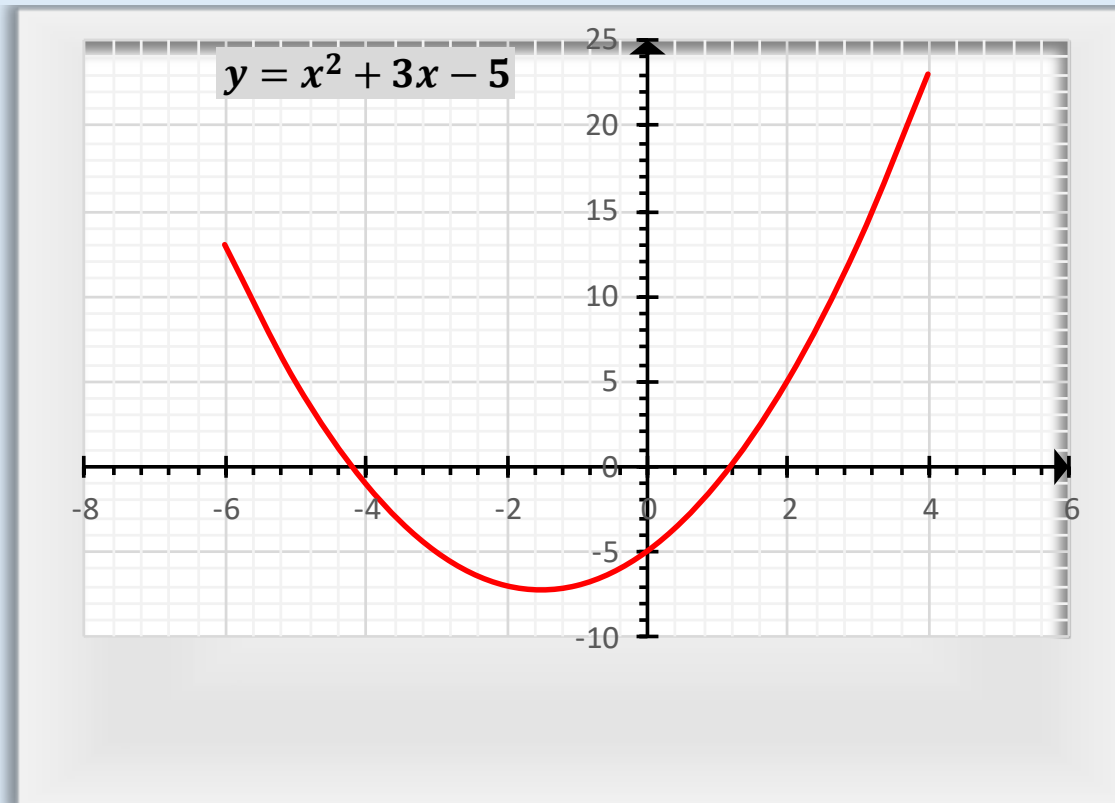
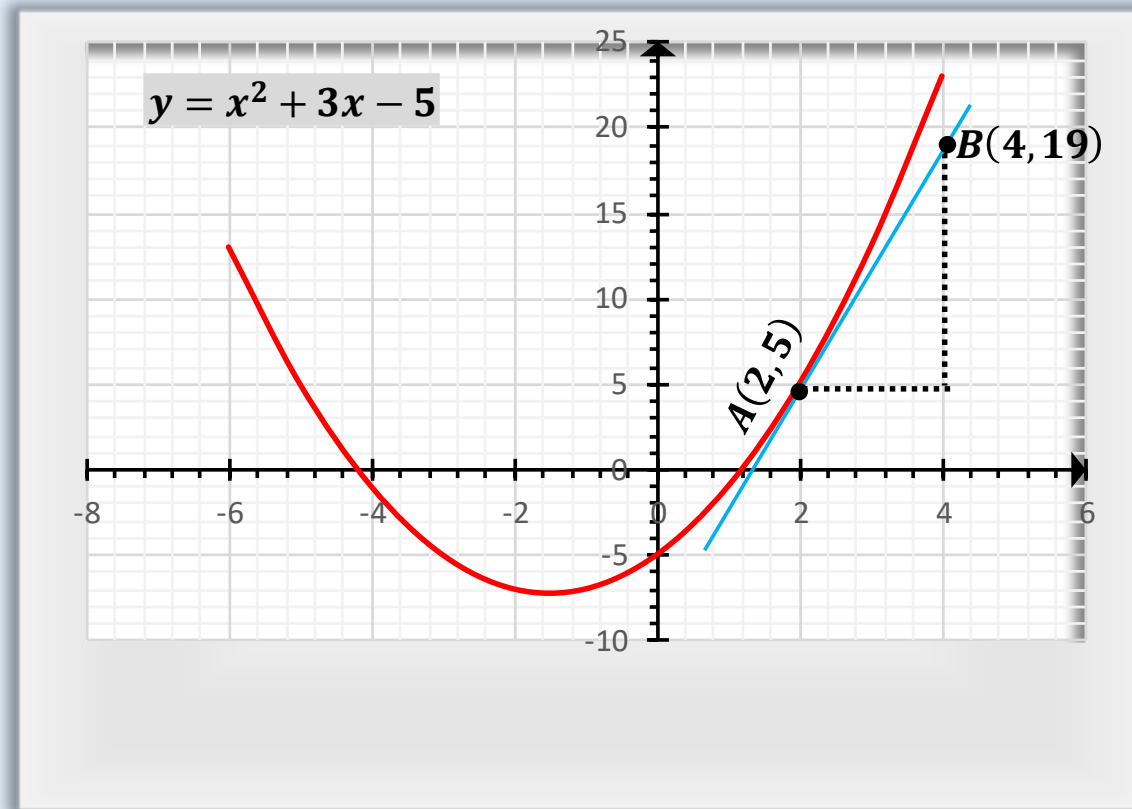


Fig. 4-17: Solution to Example 9.



**Fig. 4-18: Equation of a line using the slope and y-intercept illustrated.**

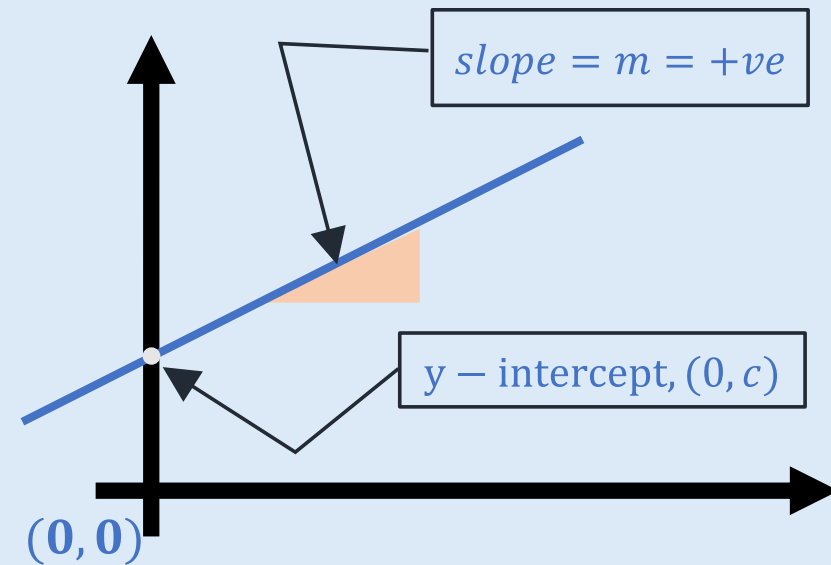
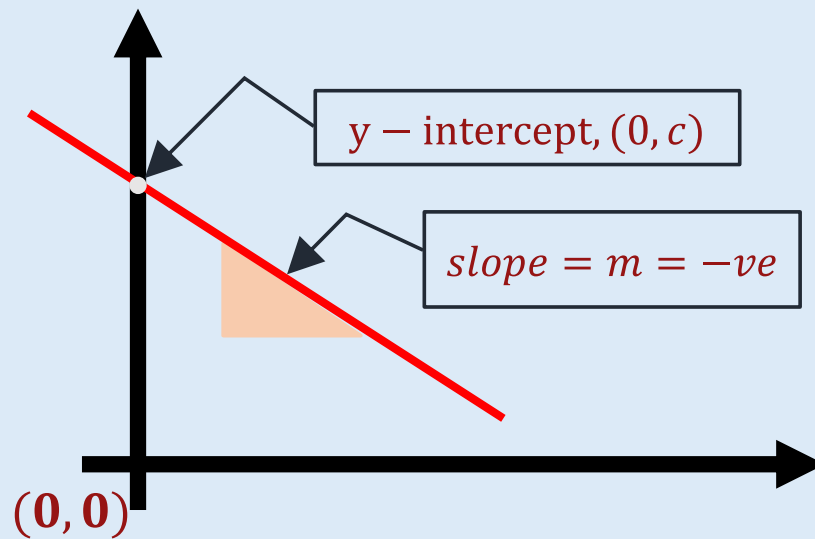


Fig. 4-19: Illustrating when  $m = 1$  and  $c = 0$ .

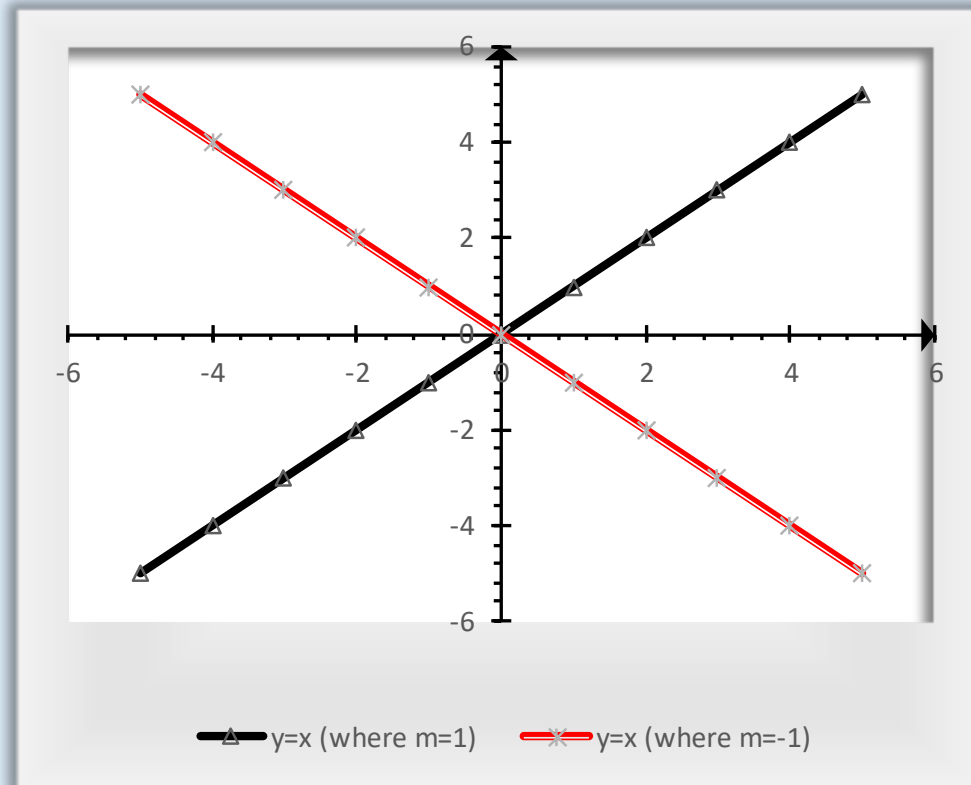


Fig. 4-20: Illustrating when  $m = 0$  and  $c$  is a real number.

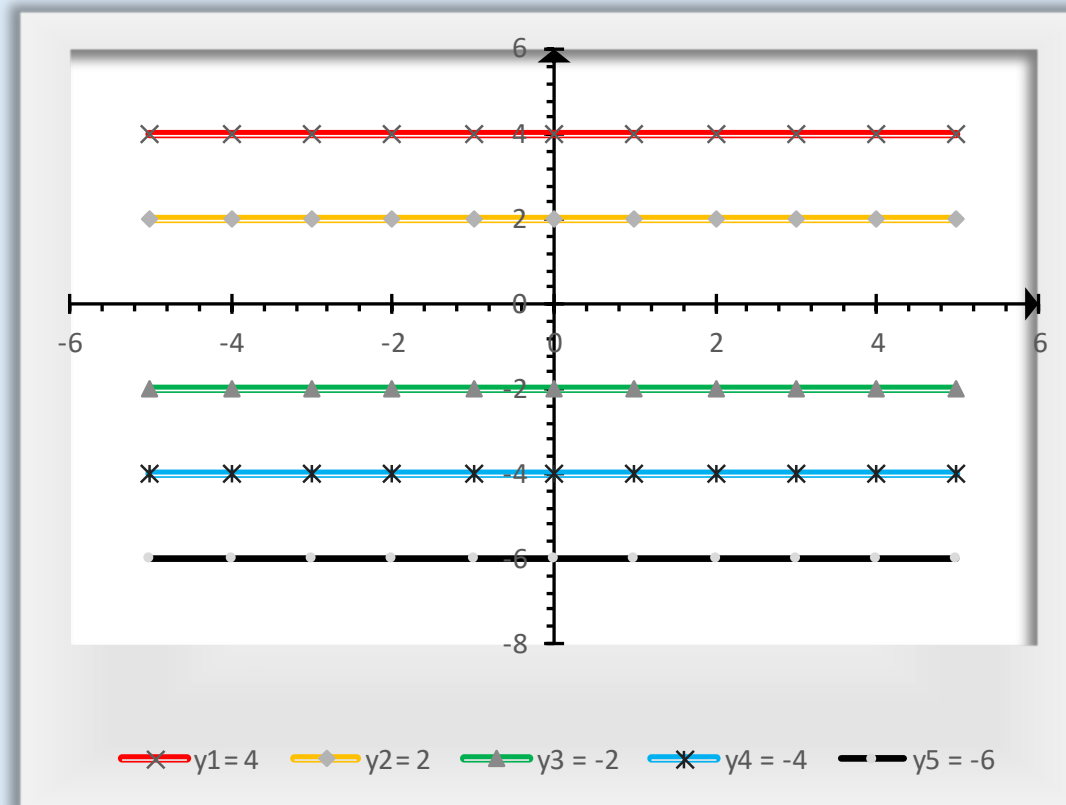


Fig. 4-21: Illustrating when  $m$  is the same for two or more lines with different values of  $c$ .

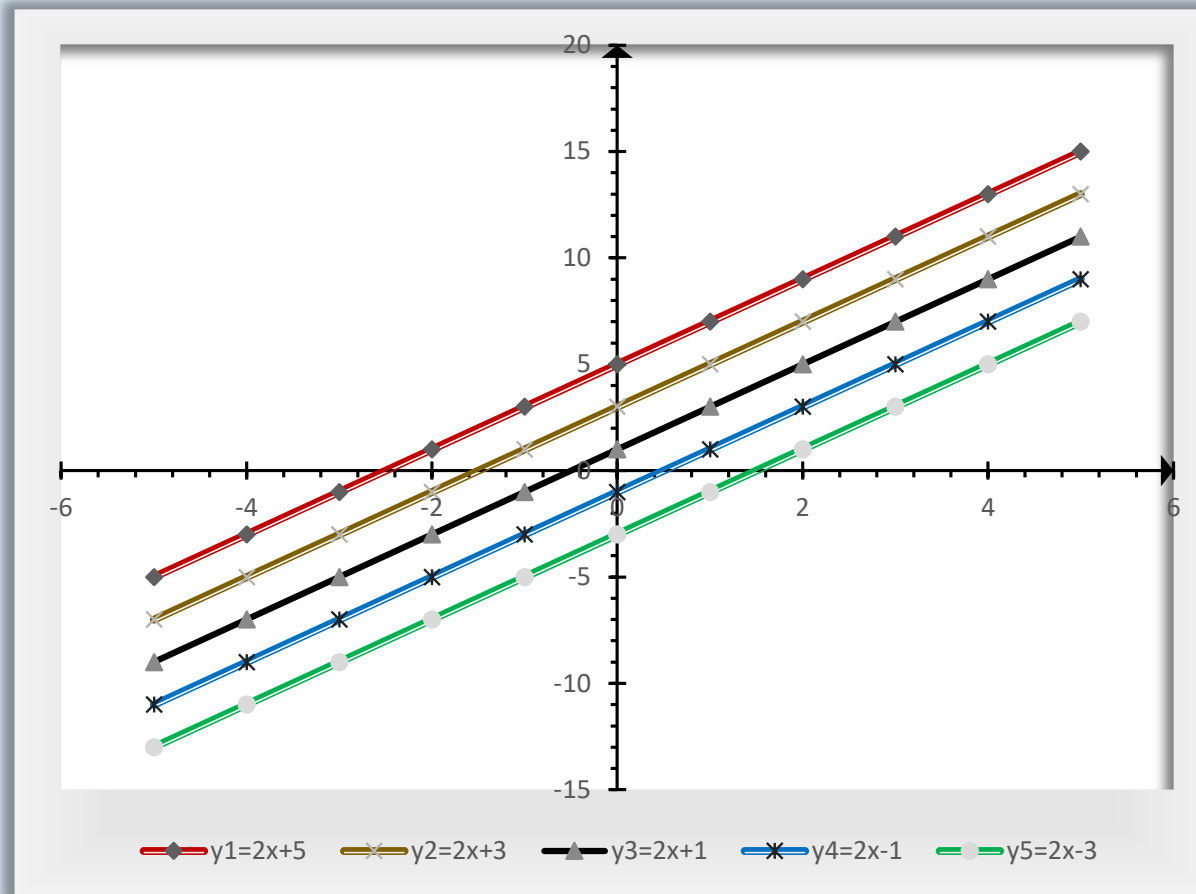


Fig. 4-22: Illustrating when  $c$  is the same for two or more lines with different values of  $m$ .

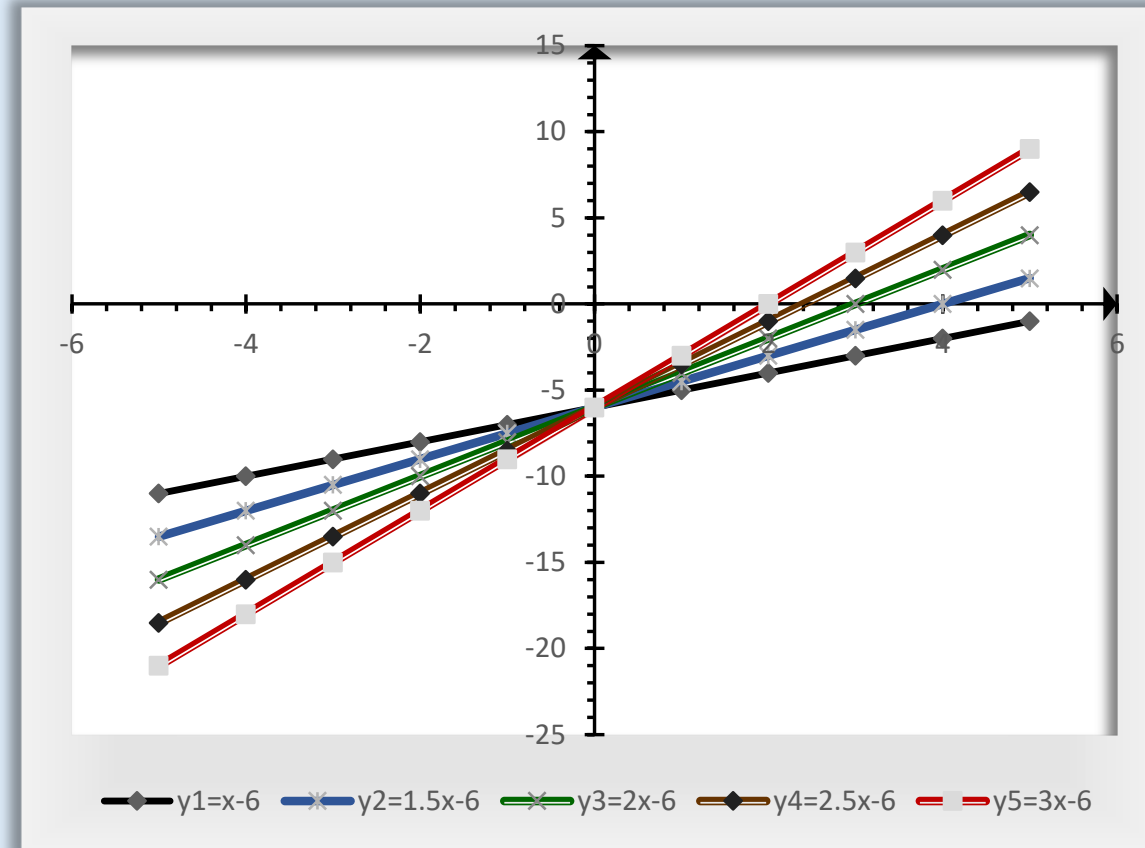
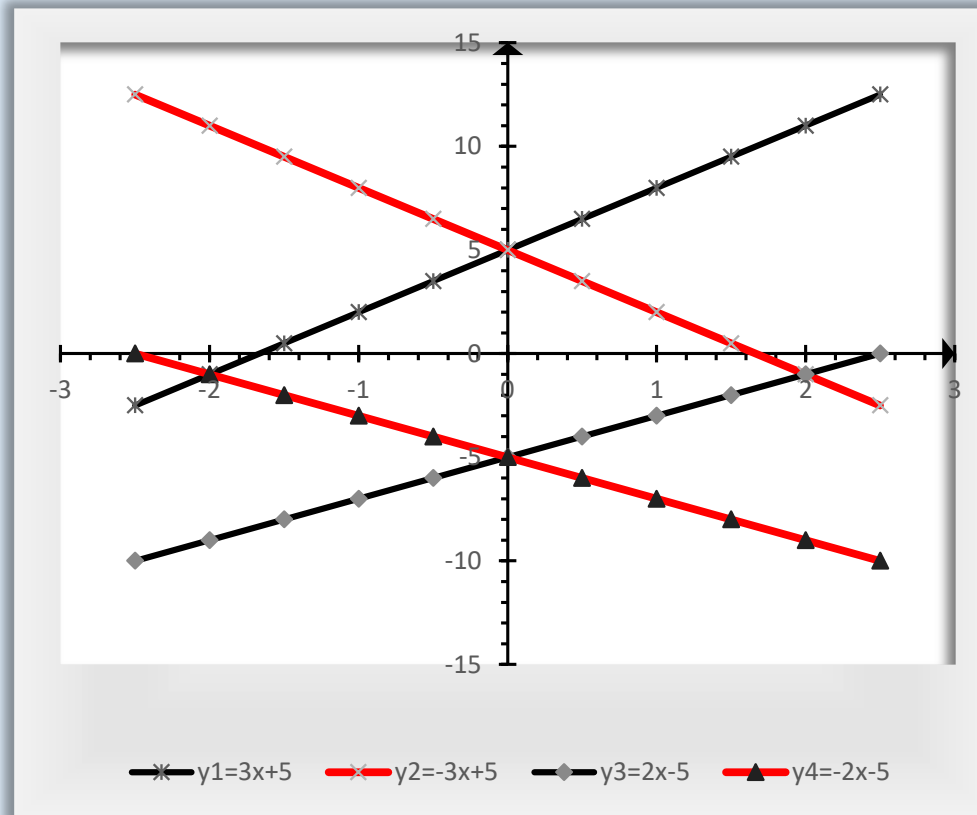


Fig. 4-23: Illustrating when a pair of lines have slopes that differ only in sign and the same values of  $c$ .





# *Thank You*

