

IB Math Studies

Linear Equations

Assignment #2

Parallel Lines: Two non-vertical lines are parallel if and only if their slopes are equal.
Any two vertical lines are always parallel.

Perpendicular Lines: Two non-vertical lines are perpendicular if and only if their slopes are negative reciprocals.

Problems:

Write the Standard Form of the equation of the lines that are parallel and perpendicular to $y=2x-3$ and passes through the given coordinate.

1) (4,2)

2) (-3,6)

3) (8,-2)

4) (-5,-7)

Write the Standard form of the equation of the line that is **perpendicular** to the given line and passes through the given point:

5) $y = -2x+5$; (0,-3)

6) $y = 4x-2$; (3,4)

7) $5y-4x = 10$; (-15,8)

8) $3y+2x = 3$; (-9,-6)

9) $6x - 4y +8=0$; (2,12)

10) $3x-y = 8$; (-1,5)