

5.5

NOTES

“WRITE EQUATIONS OF
PARALLEL AND
PERPENDICULAR LINES”

Parallel Lines →

have the same slope

Perpendicular Lines →

have slopes that are
opposite reciprocals of one
another

Ex. # 1 – Determine which lines, if any, are parallel or perpendicular:

Line a : $y = \frac{3}{5}x + 1$

Line b : $5y = 3x - 2$

Line c : $10x - 6y = -4$

Line d : $y + 9 = (-\frac{5}{3})(x - 6)$

Ex. # 2 – Write an equation of the line in slope-int. form that passes through the given points and is PARALLEL to the given line.

a) $(-1, 3)$, $y = 2x + 7$

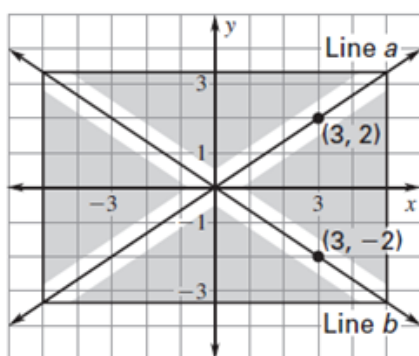
b) $(6, -1)$, $y + (3/2)x = -3$

Ex. # 3 – Write an equation of the line in slope-int. form that passes through the given point and is PERPENDICULAR to the given line.

a) $(-9, -8), \quad y - 6 = (-3/4)x$

Ex. # 4 – Parallel or Perpendicular Graphs

Country Flag The flag of Scotland is shown in a coordinate plane.



- Use the information in the graph to write equations for line a and line b .
- Is line a perpendicular to line b ? *Explain* your reasoning.

HOMEWORK:

Pages 321- 323
#’s 2 – 14 even,
20 -26 even, 32, 36