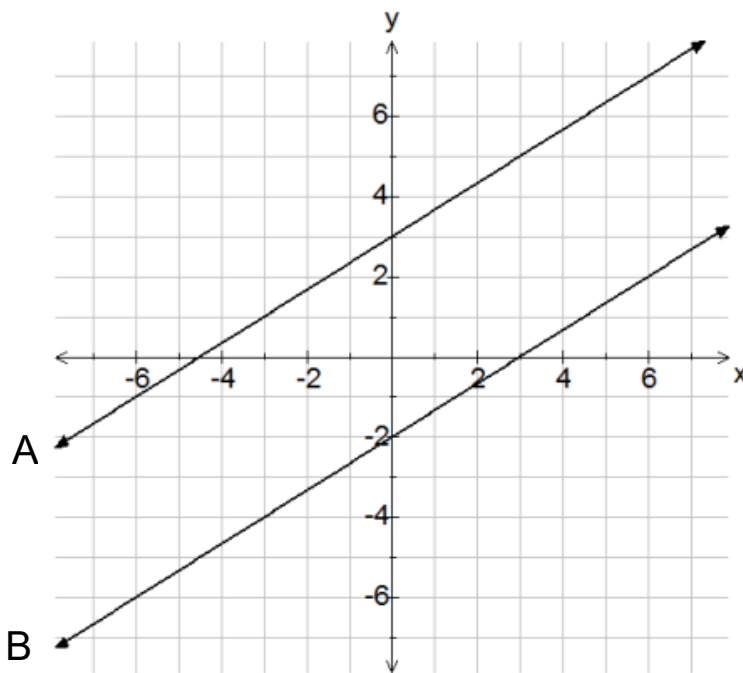


Section 6.2 Slopes of Parallel and Perpendicular Lines

↳ Parallel lines are lines that never meet.

Example 1

a) Determine the slope of the parallel lines below.



Slope of Line A

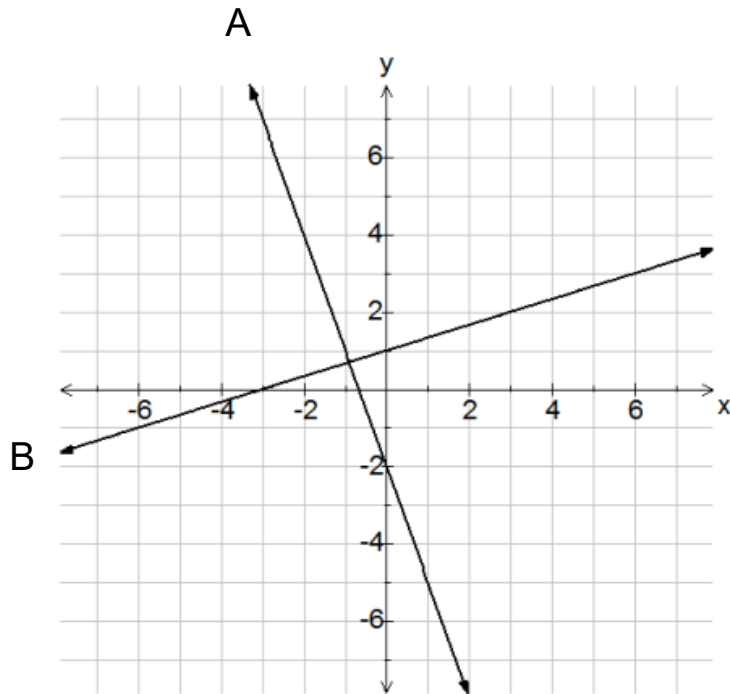
Slope of Line B

b) What conclusion can be made about the slopes of parallel lines?

↳ Perpendicular lines meet at a right angle (90°).

Example 2

a) Determine the slope of the perpendicular lines below.



Slope of Line A

Slope of Line B

b) What do you notice about the slopes of perpendicular lines?

c) Multiply the slopes of the perpendicular lines. What do you notice?

Example 3

Given the slopes of lines identify if they are parallel, perpendicular or neither.

a) 2 and $\frac{1}{2}$

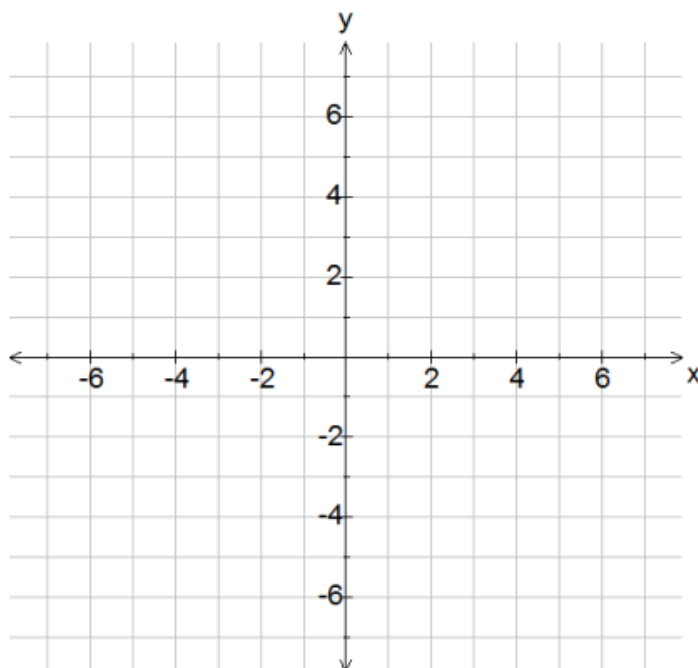
b) $\frac{1}{3}$ and $\frac{1}{3}$

c) 5 and $-\frac{1}{5}$

Example 4

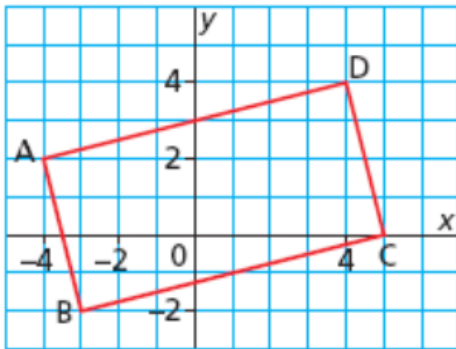
a) Determine the slope of a line that is perpendicular to the line through $E(2,3)$ and $F(-4,-1)$.

b) Determine the coordinates of G so that line EG is perpendicular to line EF.



Example 5

A) Is quadrilateral ABCD a parallelogram? Justify your answer.



B) Is it a rectangle? Justify your answer

Work Book Questions

p.349-350 #3ac, 4abcd, 5abcd, 8bcd,
9a, 10a, 13ab, 17

Extra Practice Questions

p.349-350 #3bd, 6abcd, 8a, 9bc,
10b, 11abcde, 16