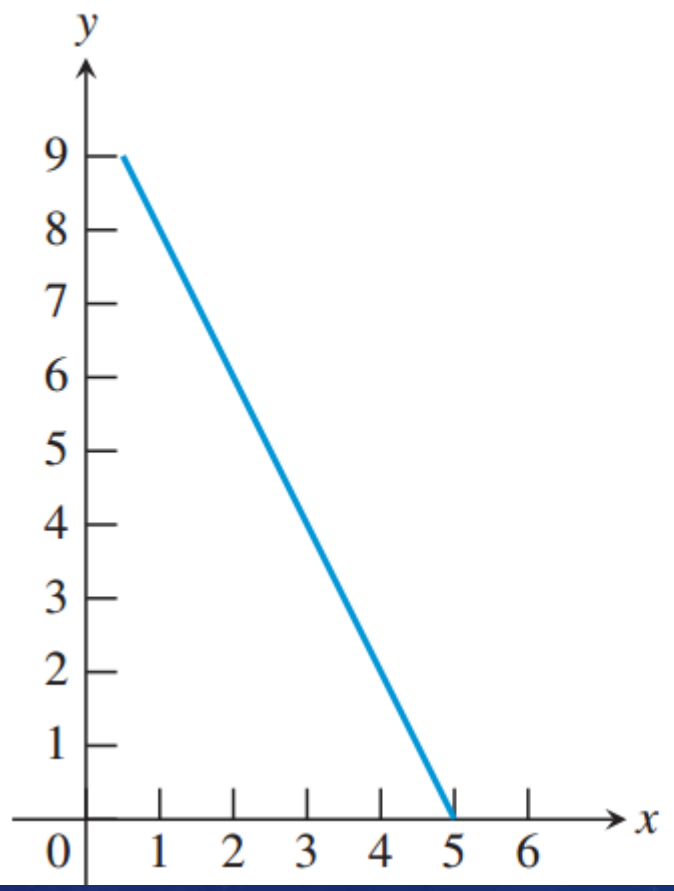
Assignment Title:

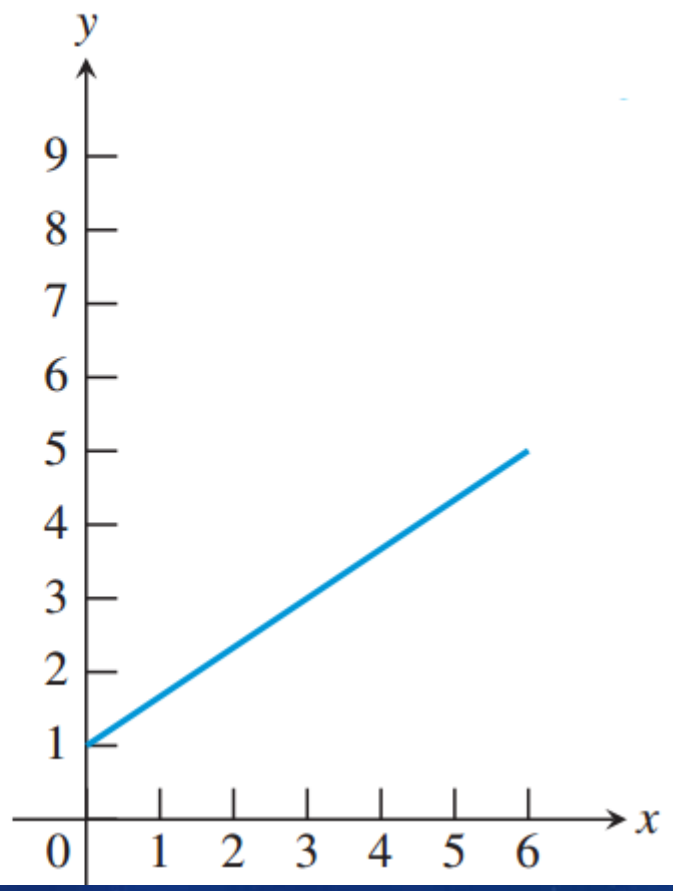
"P-4: Equations of lines"

In Exercises 1 and 2, estimate the slope of the line.

1.



2.



In Exercises 3–6, find the slope of the line through the pair of points.

5. $(-2, -5)$ and $(-1, 3)$

6. $(5, -3)$ and $(-4, 12)$

In Exercises 7–10, find the value of x or y so that the line through the pair of points has the given slope.

Points	Slope
7. $(x, 3)$ and $(5, 9)$	$m = 2$
8. $(-2, 3)$ and $(4, y)$	$m = -3$

In Exercises 11–14, find a *point-slope form* equation for the line through the point with given slope.

Point	Slope	Point	Slope
12. $(-4, 3)$	$m = -2/3$	**13.** $(5, -4)$	$m = -2$

In Exercises 15–20, find a *general form equation* for the line through the pair of points.

16. $(-3, -8)$ and $(4, -1)$

In Exercises 21–26, find a slope-intercept form equation for the line.

22. The line through $(1, 2)$ with slope $m = 1/2$

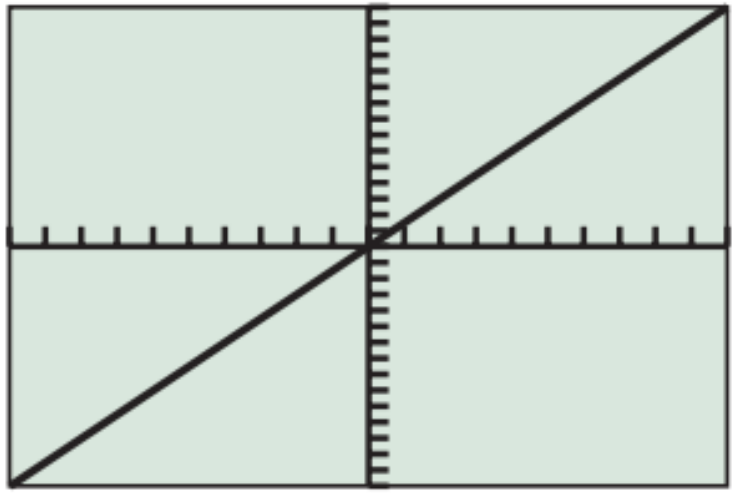
24. The line through the points $(4, 2)$ and $(-3, 1)$

In Exercises 27–30, graph the linear equation on a grapher. Choose a viewing window that shows the line intersecting both the x- and y-axes.

27. $8x + y = 49$

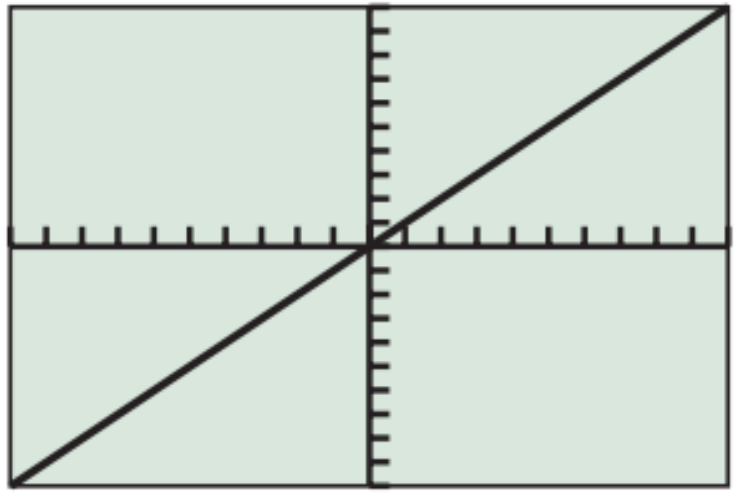
29. $123x + 7y = 429$

31. Writing to Learn Which line shown here has the greater slope? Explain.



[–10, 10] by [–15, 15]

(a)



[–10, 10] by [–10, 10]

(b)

In Exercises 41–44, (a) find an equation for the line passing through the point and parallel to the given line, and (b) find an equation for the line passing through the point and perpendicular to the given line. Support your work graphically.

Point	Line
41. $(1, 2)$	$y = 3x - 2$
44. $(6, 1)$	$3x - 5y = 15$