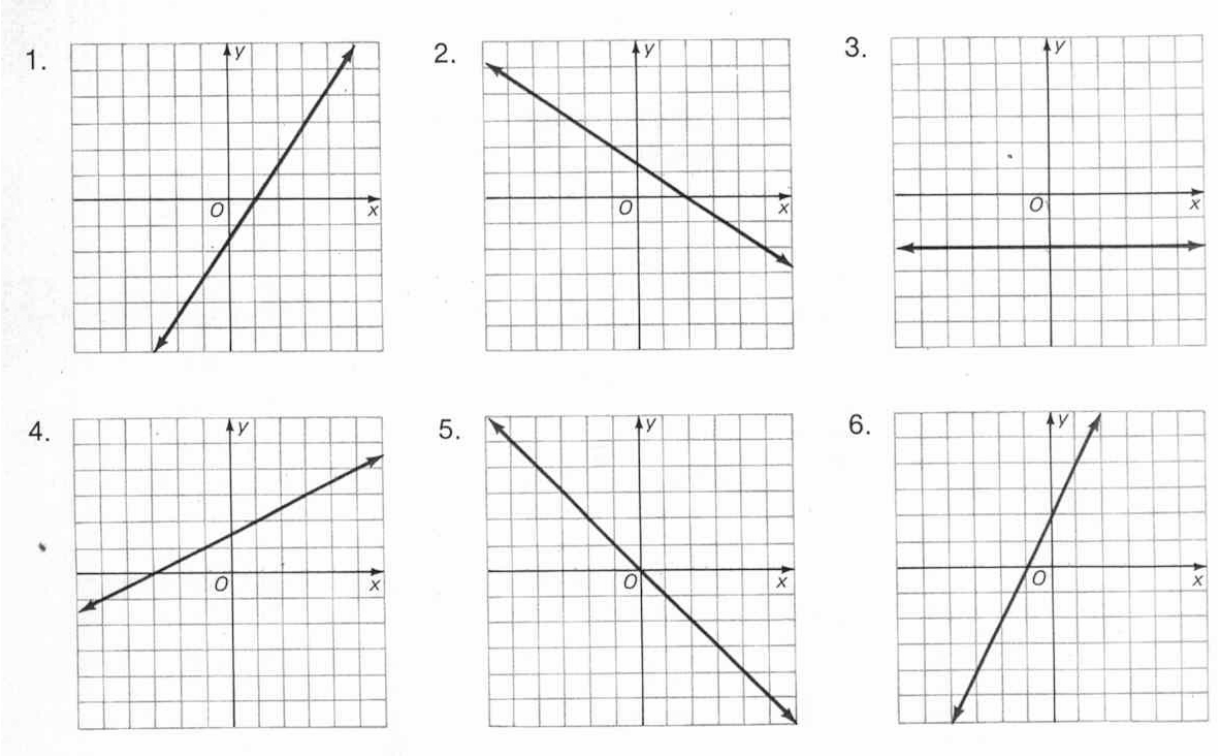
Supplemental Problem Set for Section 2.2

Note that this is a two-page document.

Find the slope of each line.



Find the slope of the straight line through the two points whose coordinates are given.

7. (10, 2) and (25, 5)

8. (6, 42) and (0, 0)

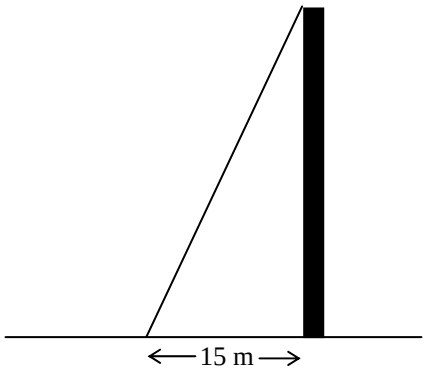
9. (1, 6) and (2, 5)

10. (4, 2) and (–5, 2)

11. (–2, 1) and (–5, –3)

12. (–1, 5) and (–1, 3)

13. A wire is attached to the top of a pole and to the ground 15 meters from the pole. The slope of the wire is $\frac{4}{3}$. What is the height of the pole?



14. Consider the function $f(t) = 5t - 7$, with the domain $N = \{1, 2, 3,...\}$. Which of the following numbers are in the range of the function. Explain how you know.

a. 3
b. 14
c. 5
d. 13

15. Determine which of the following are functions from $D = \{0, 1, 2, 3,..\}$ to D. If your answer is that it is not a function, explain why not.

a. $f(x) = 5$ for all x in D.
b. $f(x) = 3$ if x is in $\{0, 1, 2, 3\}$ and $f(x) = 0$ if x is not in $\{0, 1, 2, 3\}$.
c. $f(x) = x$ for all x in D and $f(x) = 10$ if x is in $\{1, 2, 3, 4\}$.