

Practice C

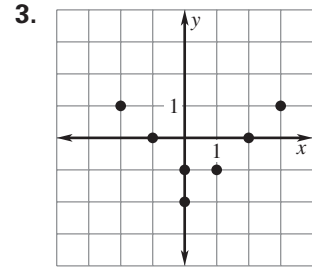
For use with pages 67–74

Tell whether the relation is a function.

1. Input Output
- 3 → -1
 2 → -5
 5 → 5
 4 → 6

2.

x	1	2	4	7	0
y	0	0	0	0	0



State the quadrant in which each point lies. Assume that a and b are positive numbers.

4. (a, b) 5. $(-a, b)$ 6. $(-a, -b)$ 7. $(a, -b)$

Graph the function.

8. $y = 3x + 5$ 9. $y = -3$ 10. $y = 4 - 7x$
11. $y = \frac{1}{2}x + 2$ 12. $y = 4 - \frac{3}{4}x$ 13. $y = \frac{3}{5}x$

Decide whether the function is linear. Then find the indicated value of $f(x)$.

14. $f(x) = 7x + 2, f(2)$ 15. $f(x) = x^2 + 3x - 1, f(-3)$ 16. $f(x) = |x| + x, f(-5)$
17. $f(x) = (x + 3)^2, f(4)$ 18. $f(x) = \frac{x - 7}{3x}, f(2)$ 19. $f(x) = 2x^3 - 4, f(1)$

Earthquakes In Exercises 20–22, use the table below which shows 10 of the worst earthquakes of the 20th century.

Location (Year)	Magnitude, x	Deaths, y
Chile (1960)	8.3	5000
India (1950)	8.7	1530
Japan (1946)	8.4	2000
Chile (1939)	8.3	28,000
India (1934)	8.4	10,700
Japan (1933)	8.9	2990
China (1927)	8.3	200,000
Japan (1923)	8.3	200,000
China (1920)	8.6	100,000
Chile (1906)	8.6	20,000

20. Identify the domain and range of the relation.
21. Graph the relation.
22. Is the number of deaths a function of the magnitude of an earthquake? Explain.