

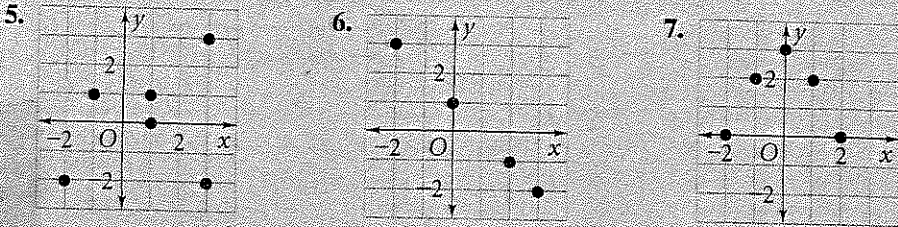
SHOW
WORK ON
lined
paper

graphs
provided
on back

Graph each relation.

1. $\{(-1, 3), (-2, 1), (-3, -3), (-4, -5)\}$ 2. $\{(0, -2), (2, 0), (3, 1), (5, 3)\}$
 3. $\{(-1, 0), (\frac{1}{2}, -1), (0, \frac{1}{2}), (-1, -\frac{1}{2})\}$ 4. $\{(2\frac{1}{2}, 0), (-\frac{1}{2}, 0), (2, 0), (0, 0)\}$

Write the ordered pairs for each relation. Find the domain and range.



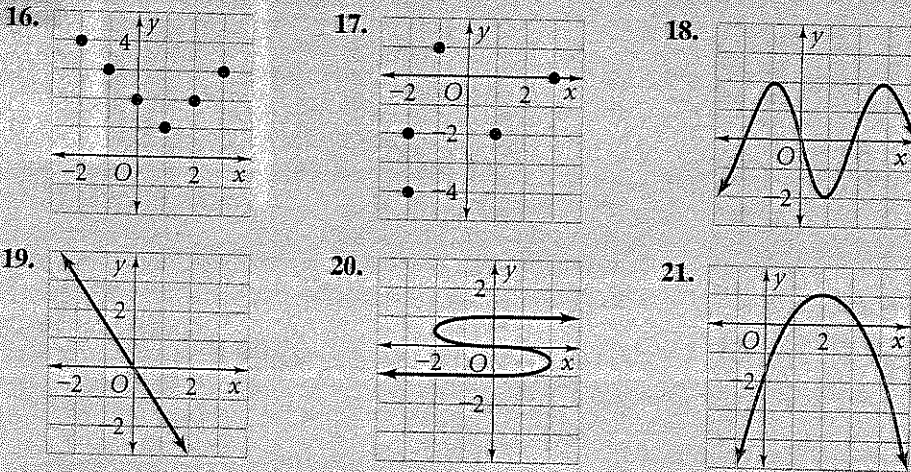
Make a mapping diagram for each relation.

8. $\{(0, 0), (-1, -1), (-2, -8), (-3, -27)\}$ 9. $\{(-2, 8), (-1, 1), (0, 0), (1, 1), (2, 8)\}$
 10. $\{(-\frac{1}{2}, 11), (0, 10), (\frac{1}{2}, 5), (1, 12)\}$ 11. $\{(5, 10), (10, 5), (15, 20), (20, 15)\}$

Determine whether each relation is a function.

12. $\{(1, -2), (-2, 0), (-1, 2), (1, 3)\}$ 13. $\{(1, 1), (2, 2), (3, 5), (4, 10), (5, 15)\}$
 14. $\{(17, \frac{15}{4}), (\frac{15}{4}, 17), (15, \frac{17}{4}), (\frac{17}{4}, 15)\}$ 15. $\{(-3, \frac{2}{5}), (-2, \frac{3}{5}), (\frac{3}{2}, -5), (5, \frac{2}{5})\}$

Use the vertical-line test to determine whether each graph represents a function.

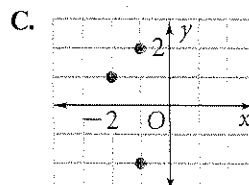
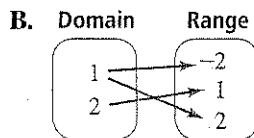
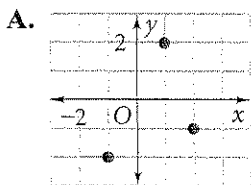


For each function, find $f(-5)$, $f(-3)$, $f(\frac{1}{2})$, and $f(4)$.

22. $f(a) = 2a + 3$ 23. $f(y) = -3y - 2$ 24. $f(z) = z + 9.5$
 25. $f(x) = -x - 7$ 26. $f(d) = 1 - 4d$ 27. $f(x) = 2x - 3$
 28. $f(h) = -6h - \frac{2}{3}$ 29. $f(x) = \frac{5}{8}x + \frac{1}{3}$ 30. $f(t) = \frac{1}{2}t - 2$

Match each relation with a model.

40. $\{(1, 2), (-1, -2), (2, -1)\}$ 41. $\{(2, 1), (1, 2), (1, -2)\}$
 42. $\{(-1, 2), (-2, 1), (-1, -2)\}$



Graph each relation. Find the domain and range.

32. $\{(2, 4), (3, 5), (4, 6), (5, 7)\}$

33. $\{(-1, 1), (-2, 2), (-3, 3), (-4, 4)\}$

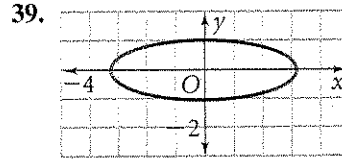
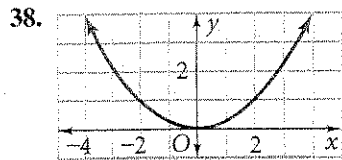
34. $\left\{\left(-\frac{1}{2}, 2\right), \left(2, \frac{1}{2}\right), \left(0, -\frac{1}{2}\right), \left(-\frac{1}{2}, -2\right)\right\}$

35. $\left\{\left(\frac{3}{2}, -\frac{1}{2}\right), \left(\frac{5}{2}, \frac{1}{2}\right), \left(\frac{1}{2}, \frac{1}{2}\right), \left(-\frac{3}{2}, \frac{1}{2}\right)\right\}$

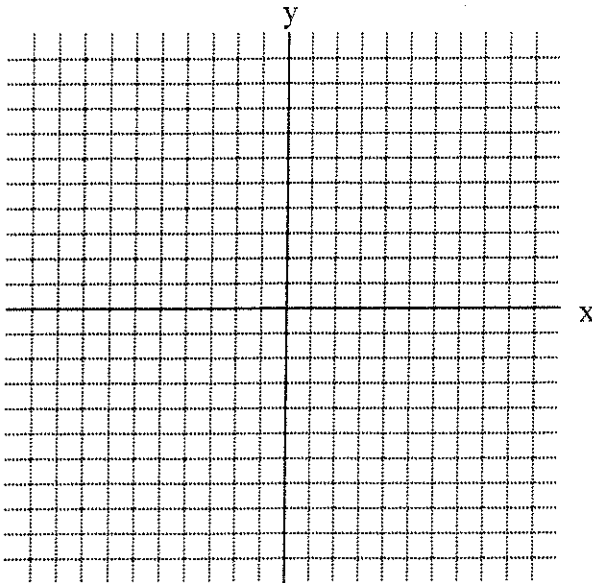
Find the domain and range of each relation and determine whether it is a function.

36. $\{(2, 4), (4, 8), (8, 16)\}$

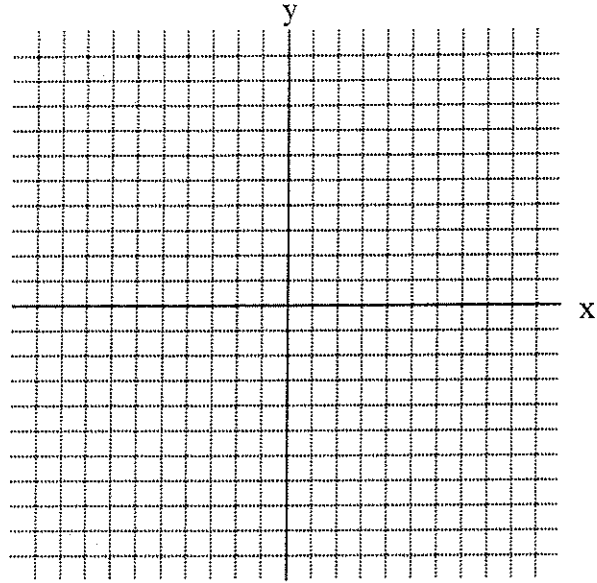
37. $\{(-1, 2), (-2, 5), (-2, 7), (0, 2), (9, 2)\}$



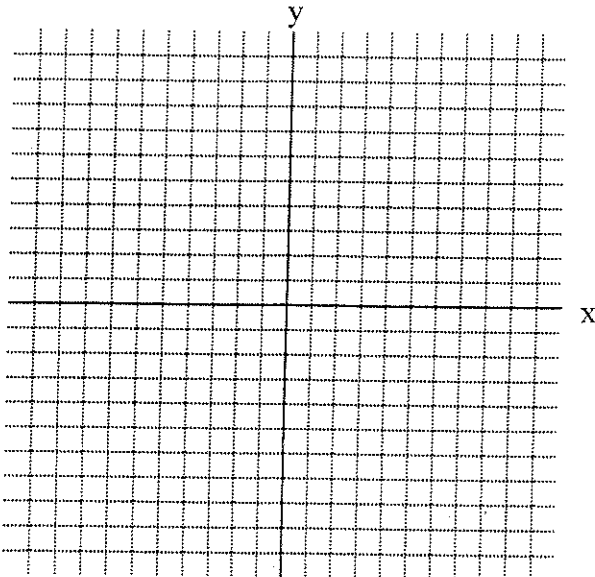
Graph for #1 + 2



Graph for #3 + 4



Graph for #32 + 33



Graph for #34 + 35

