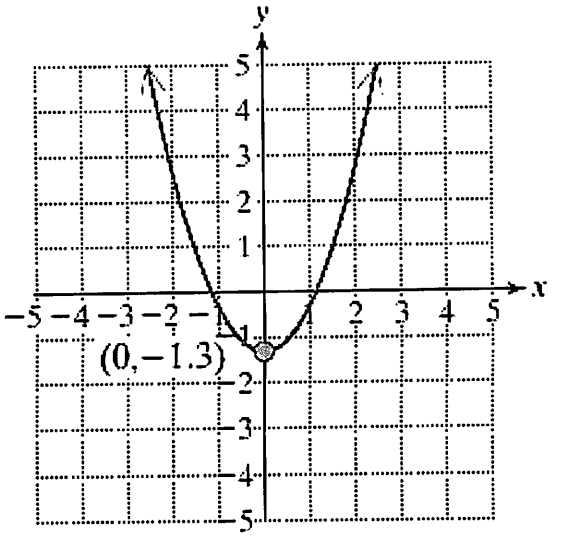
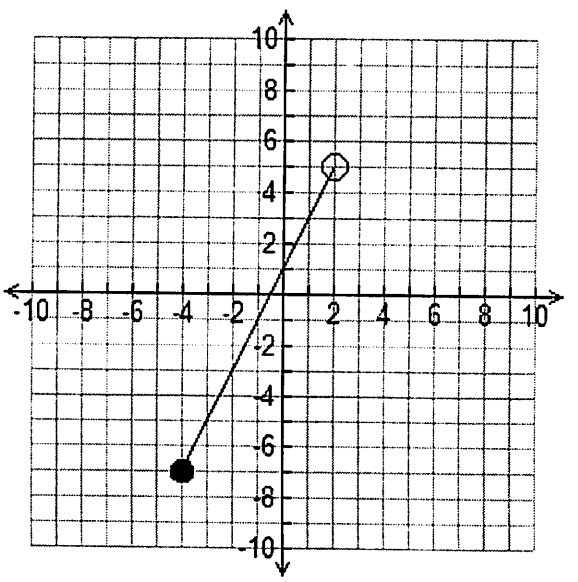
PRACTICE

1. Write the domain and range of the relation in set builder notation. Is it a function? Explain.

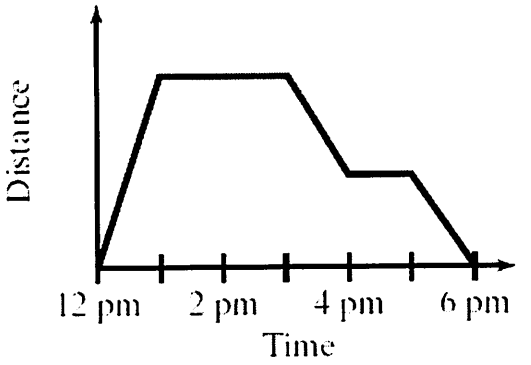


2. The function g has a domain of {-10, -5, 5, 15, 25} and a range of {3, 9, 11}.
   Could g be represented by {(-10, 3), (-5, 3), (5, 3), (15, 9), (25, 11)}? Justify your answer.

3. Write the domain and range for the linear function in interval notation.

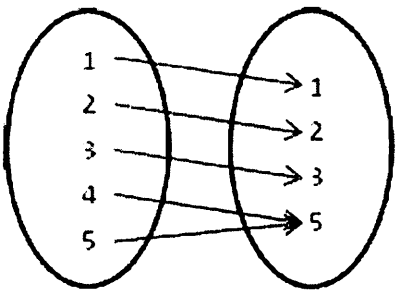


4. Write a situation for the given graph.

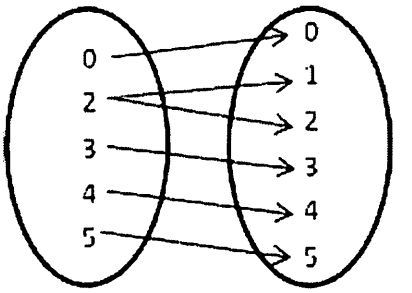


5. For which relation is the range {1, 2, 3, 4, 5}?

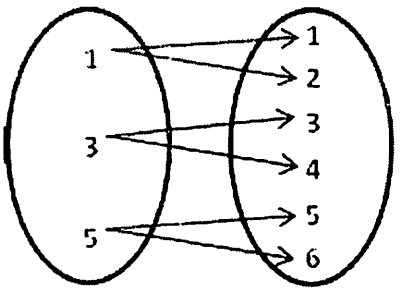
a.



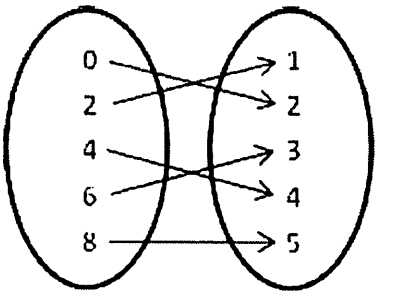
b.



c.



d.



DAILY REVIEW

1. A seamstress opens a dress shop. Her fixed costs are $5000 per month, and it costs her $25 to make a dress. If the price of each dress is $150, what is the ***minimum*** number of dresses she has to sell per month to make a profit of $3000?

Solve each of the equations for the indicated variable.

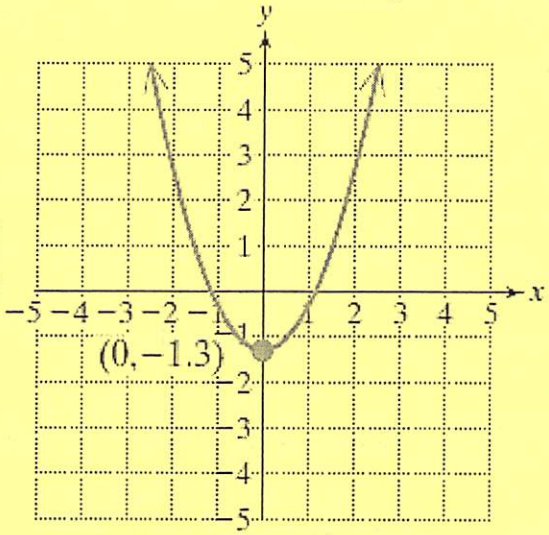
2. $\frac{x+y}{3} = 5$ for y

3. $y = xyz - 5b$ for b

4. $2x - 3y = 8$ for x

PRACTICE

1. Write the domain and range of the relation in set builder notation. Is it a function? Explain.



Domain: $\{x \mid -\infty < x < \infty\}$

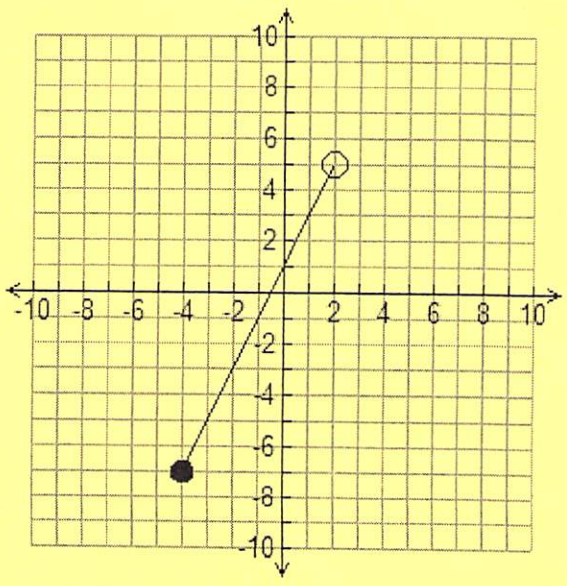
Range: $\{y \mid -1.3 \leq y < \infty\}$

Yes it is a function because the graph passes the vertical line test.

2. The function g has a domain of {-10, -5, 5, 15, 25} and a range of {3, 9, 11}. Could g be represented by {(-10, 3), (-5, 3), (5, 3), (15, 9), (25, 11)}? Justify your answer.

Yes. The relation is a function because each input has exactly one output. All domain and range values are used from the list.

3. Write the domain and range for the linear function in interval notation.

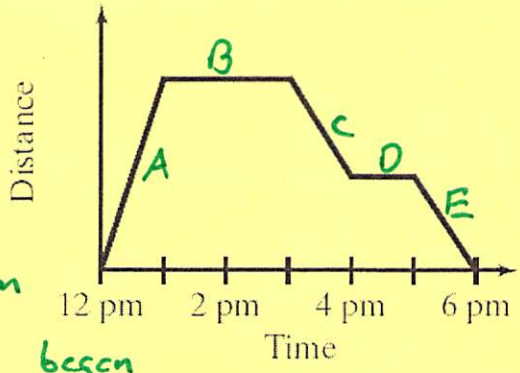


Domain: $[-4, 2)$

Range: $[-7, 5)$

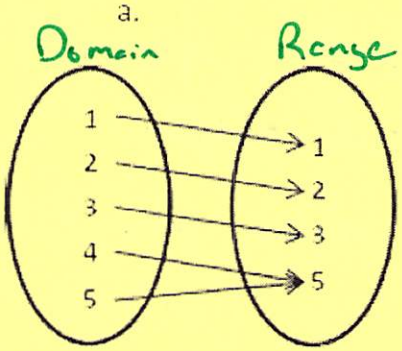
4. Write a situation for the given graph.

Jesse walked at a constant speed away from this house to the store. He then spent 2 hours at the store staying a constant distance from where he started. At 3 PM, Jesse began walking home. He stopped for an hour lunch and then continued the rest of the way home

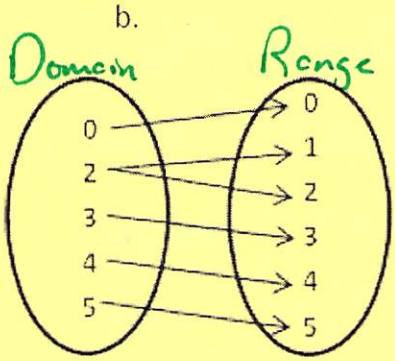


5. For which relation is the range {1, 2, 3, 4, 5}?

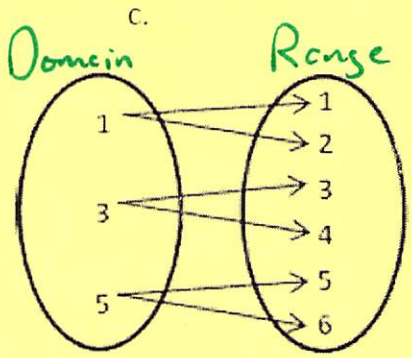
a.



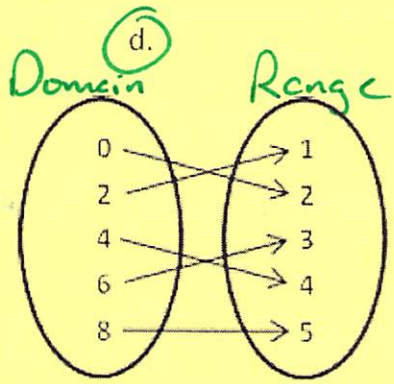
b.



c.



d.



DAILY REVIEW

1. A seamstress opens a dress shop. Her fixed costs are \$5000 per month, and it costs her \$25 to make a dress. If the price of each dress is \$150, what is the ***minimum*** number of dresses she has to sell per month to make a profit of \$3000?

Let d = # of dresses sold

$-5000 - 25d + 150d \geq 3000$

$-5000 + 125d \geq 3000$

$+5000 \quad +5000$

$\frac{125d}{125} \geq \frac{8000}{125}$

$d \geq 64$

The minimum number of dresses to make a profit of \$3000 will be 64 dresses

Solve each of the equations for the indicated variable.

2. $\frac{x+y}{3} = 5$ for y

$\cdot 3 \quad \cdot 3$

$x + y = 15$

$-x \quad -x$

$y = 15 - x$

3. $y = xyz - 5b$ for b

$-xyz - xyz$

$\frac{y - xyz}{-5} = \frac{-5b}{-5}$

$\frac{y - xyz}{-5} = b$

4. $2x - 3y = 8$ for x

$+3y \quad +3y$

$\frac{2x}{2} = \frac{8+3y}{2}$

$x = \frac{8+3y}{2}$