

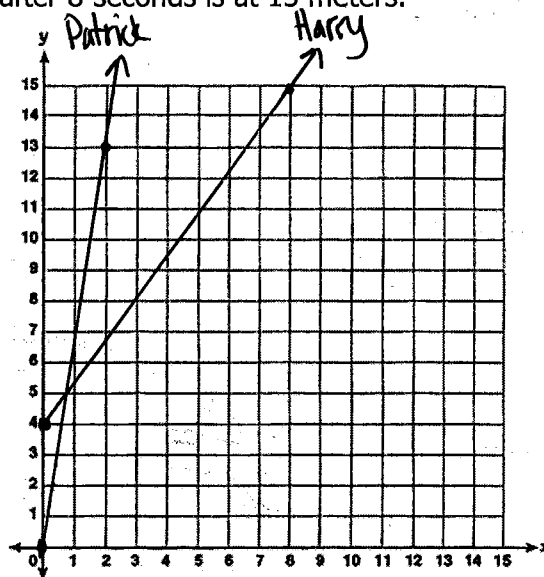
1. Patrick and Harry are racing in a track meet. Patrick did not get a head start and ran 13 meters in 2 seconds. Harry got a 4 meter head start and after 8 seconds is at 15 meters.

- a. Write an equation for each person.
- b. Draw and label the two equations on the graph.
- c. What is each person's unit rate?

Patrick: 6.5 mps

Harry: 1.375 mps

- d. Who is running faster?
Patrick



2. Solve the equations for x.

a. $2x + 7 - 5x = 11x + 4 - 14x + 8$

No solution

b. $6 - 3x + 12x = 18 + 5x - 7x + 10$

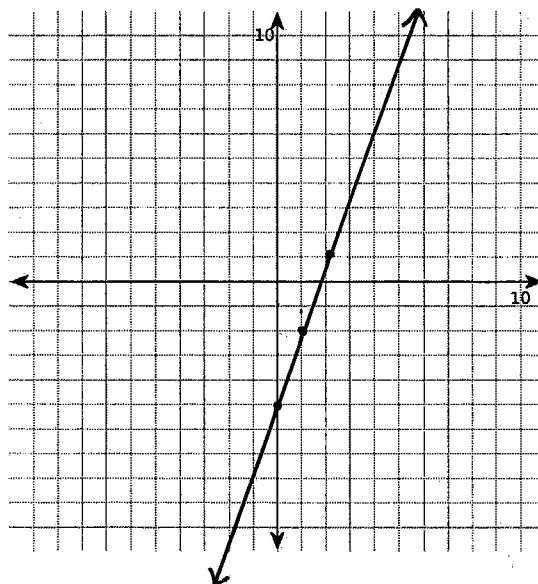
x=2

3. Graph the following lines using their equations.

a. $y = 3x - 5$

slope: 3

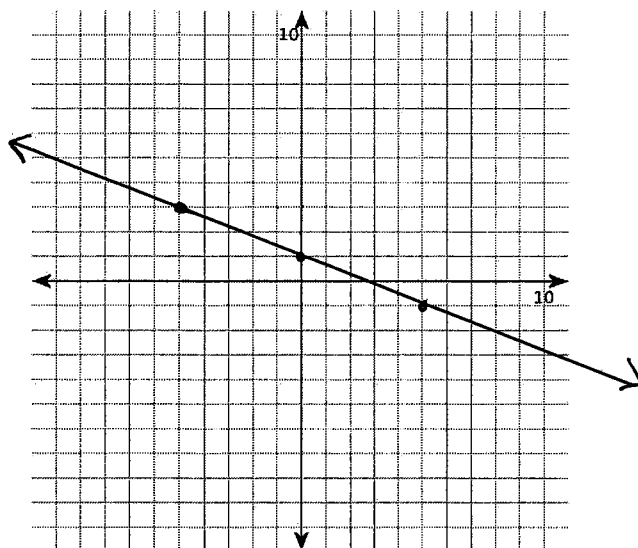
y-int: -5



b. $y = \frac{-2}{5}x + 1$

slope: $\frac{-2}{5}$

y-int: 1



4. Find the equation of the line that passes through these points.

a. (-4, 16) and (22, 3)

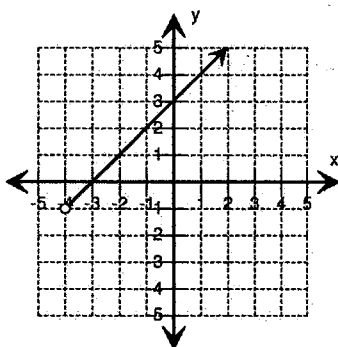
$y = -\frac{1}{2}x + 14$

b. (9, 24) and (-2, -42)

$y = 6x - 30$

5. State if the following are functions and their domain and range.

a.

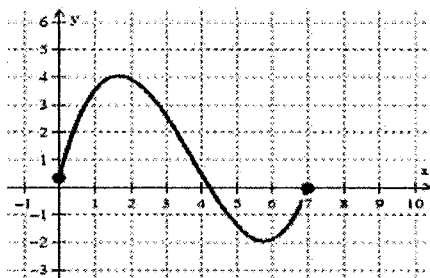


Function: yes or no?

Domain: $-4 < x < \infty$

Range: $-1 < y < \infty$

b.

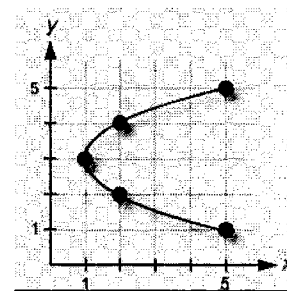


Function: yes or no?

Domain: $0 \leq x \leq 7$

Range: $-2 \leq y \leq 4$

c.



Function: yes or no?

Domain: $1 \leq x \leq 5$

Range: $1 \leq y \leq 5$