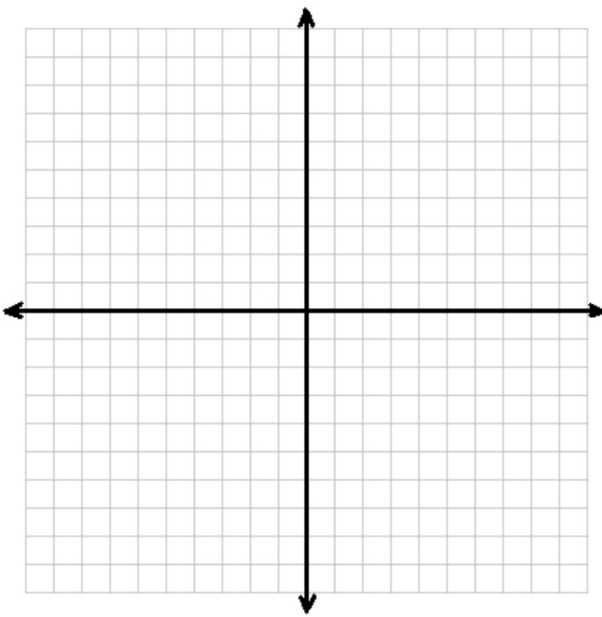




TABLES, GRAPHS, STORIES

Warm Up



1) label the x and y axis

2) Number the quadrants

3) Number 0-5 on each axis

**4) Plot the points (0,5) (5,0)
(-5,0) (0, -5)**

UNIT 2 PRE TEST

1) Find the slope of the line: $y = -2x + 3$

2) Write in slope intercept form: $2x + 3y = 8$

3) What is the equation that fits the table:

x	y
0	-5
2	10
4	15
6	20

4) What is the y-intercept of: $4x + 2y = 8$

5) Which of the following is not a linear function:

a. $y = -2x + 3$

b. $x = y$

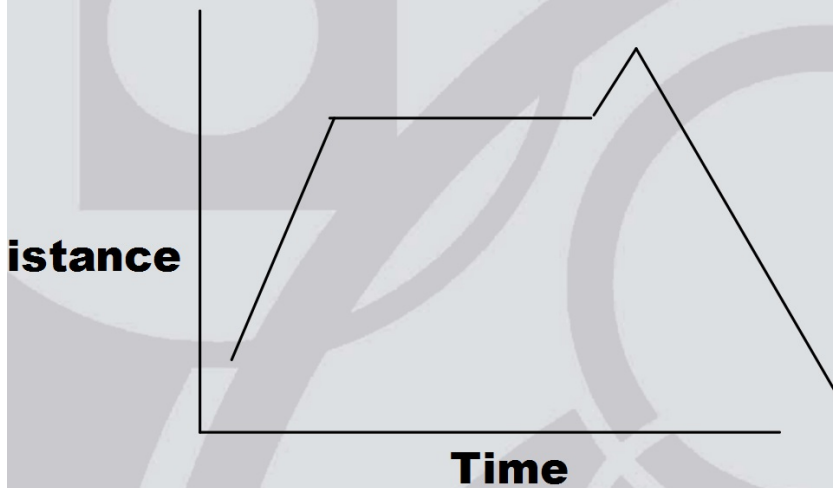
c. $y = x^2$

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

Using Graphs to relate two quantities

1) Write a situation that matches this graph

options:

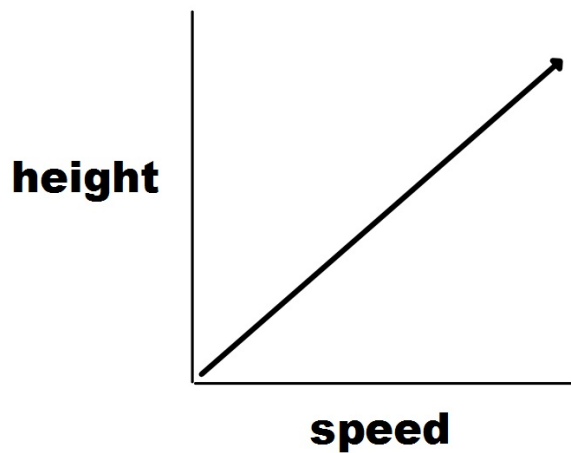


2) Make a graph that matches the situation:

You begin saving money at different rates each month, then spend all of it very quickly.

3) How are the variables related to the graph

- a) As speed decreases, height stays constant**
- b) as speed decreases, height increases**
- c) as speed increases, height decreases**
- d) as speed increases, height increases**



Warm Up

Work on 3rd half sheet glued in your notebook:
Time and Distance
Create a journeal story

1.2 Walking Rates and Linear Relationships

Think about the effect a walking rate has on the relationship between time walked and distance walked. This will provide some important clues about how to identify linear relationships from tables, graphs, and equations.

Problem 1.2 Linear Relationships in Tables, Graphs, and Equations

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

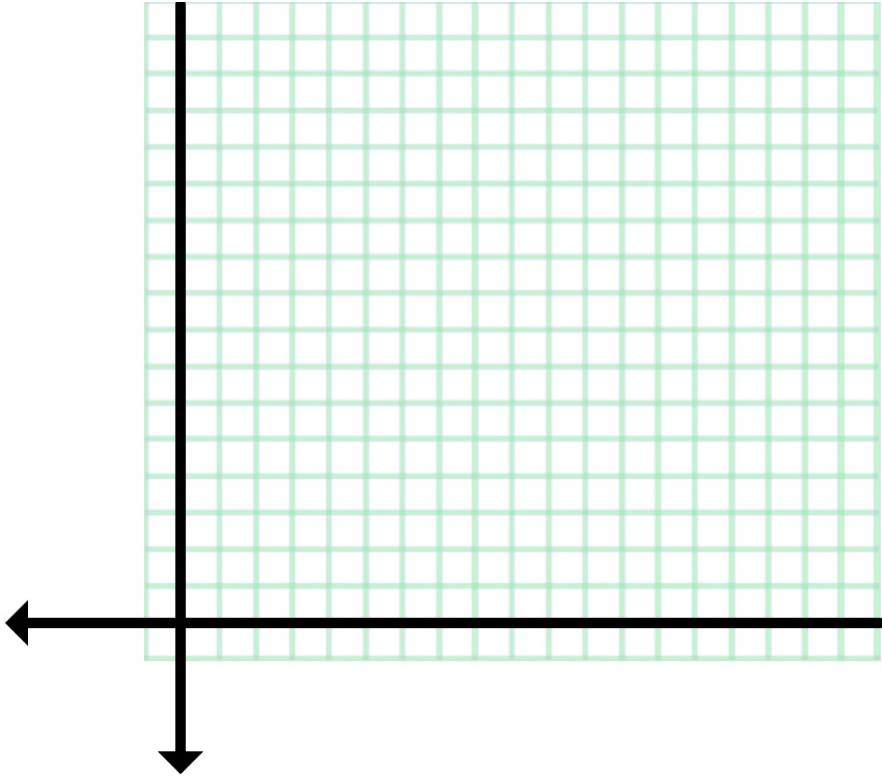
Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

Create a table that includes the rate of each person walking from 0 -10 seconds.

Time Secs	Distance in Meters		
	Alana	Gilberto	Leanne
0	0	0	0
1	1	2	2.5
2	2	4	5
3	3	6	7.5
4	4	8	10
5	5	10	12.5
6	6	12	15
7	7	14	17.5
8	8	16	20
9	9	18	22.5
10	10	20	25

How does the walking rate affect the data?

constant



X Y 0 1 2 3 4 5
Distance (m) Time (sec)

Alana _____

Gilberto _____

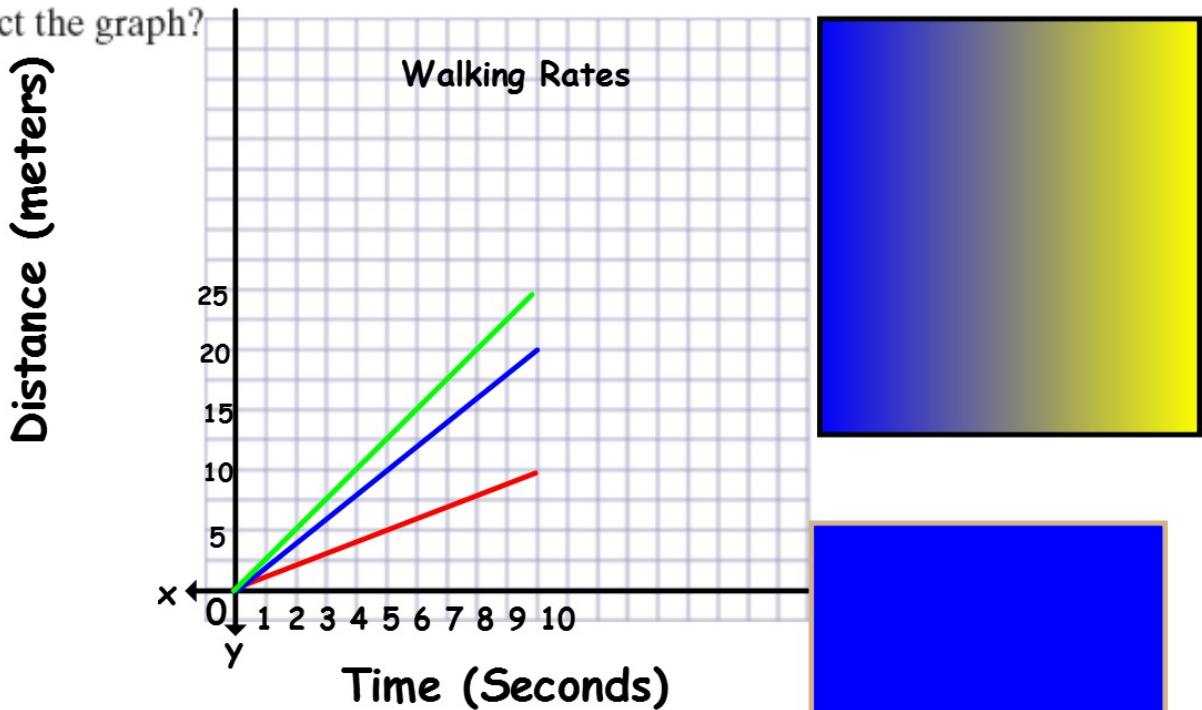
Leanne _____

Problem 1.2 Linear Relationships in Tables, Graphs, and Equations

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

2. Graph the time and distance on the same coordinate axes. Use a different color for each student's data. How does the walking rate affect the graph?



- Alana - _____
- Gilberto - _____
- Leanne - _____

Problem 1.2 Linear Relationships in Tables, Graphs, and Equations

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

3. Write an equation that gives the relationship between the time t and the distance d walked for each student. How is the walking rate represented in the equations?

Alana - $d = 1t$ $y = x$

Gilberto - $d = 2t$ $y = 2x$

Leanne - $d = 2.5t$ $y = 2.5x$



Problem 1.2 Linear Relationships in Tables, Graphs, and Equations

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

B. For each student:

1. If t increases by 1 second, by how much does the distance change?
How is this change represented in a table? In a graph?

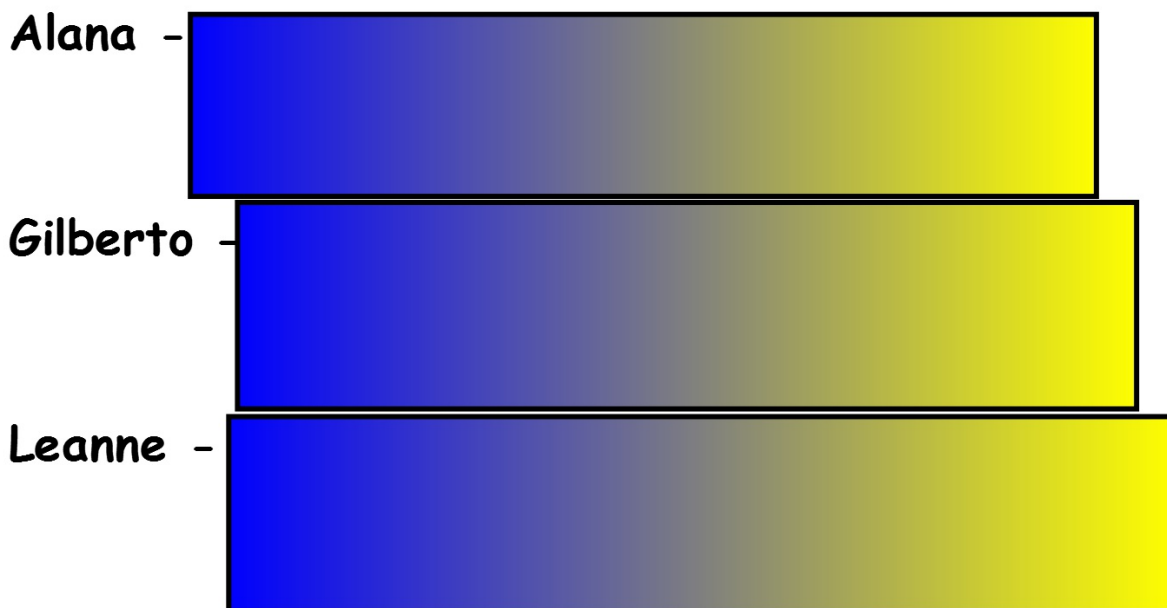


Problem 1.2 Linear Relationships in Tables, Graphs, and Equations

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

2. If t increases by 5 seconds, by how much does the distance change?
How is this change represented in a table? In a graph?



Problem**1.2****Linear Relationships in Tables, Graphs,
and Equations**

Here are the walking rates that Gilberto, Alana, and Leanne found in their experiment.

Name	Walking Rate
Alana	1 meter per second
Gilberto	2 meters per second
Leanne	2.5 meters per second

B.

3. What is the walking rate per minute? The walking rate per hour?

Alana -



Gilberto -



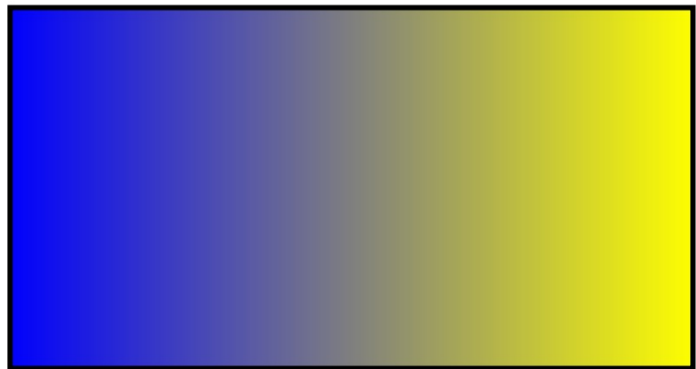
Leanne -



- C. Four other friends who are part of the walkathon made the following representations of their data. Are any of these relationships linear relationships? Explain.

George's Walking Rate

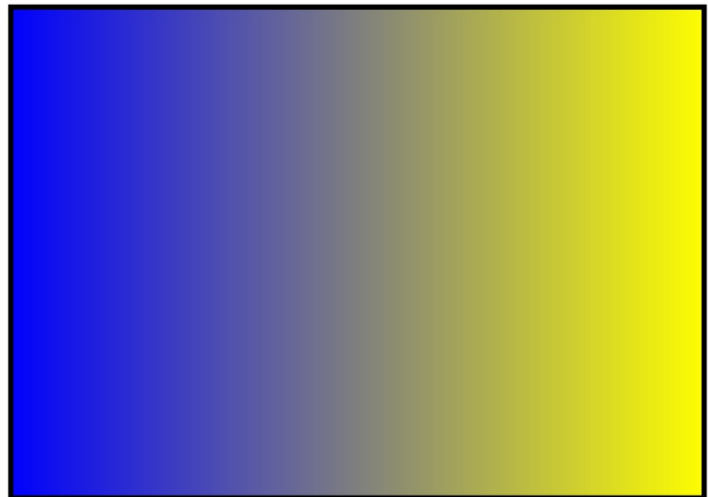
Time (seconds)	Distance (meters)
0	0
1	2
2	9
3	11
4	20
5	25



- C. Four other friends who are part of the walkathon made the following representations of their data. Are any of these relationships linear relationships? Explain.

Elizabeth's Walking Rate

Time (seconds)	Distance (meters)
0	0
2	3
4	6
6	9
8	12
10	15



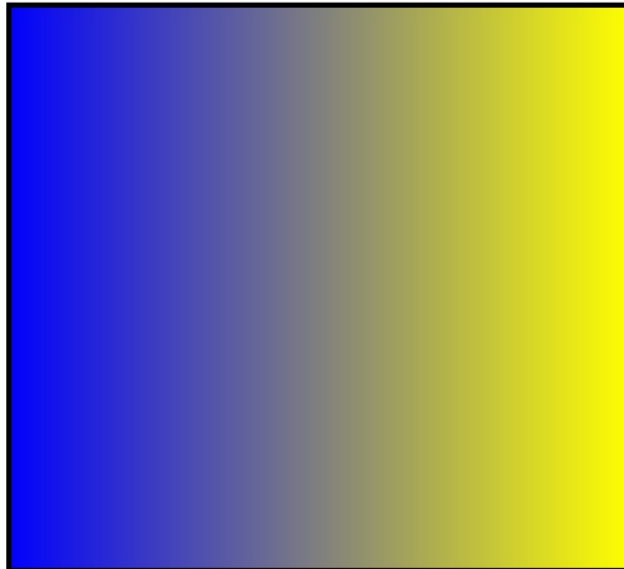
- C. Four other friends who are part of the walkathon made the following representations of their data. Are any of these relationships linear relationships? Explain.

Billie's Walking Rate

$$D = 2.25t$$

D represents distance

t represents time



- C. Four other friends who are part of the walkathon made the following representations of their data. Are any of these relationships linear relationships? Explain.

Bob's Walking Rate

$$t = \frac{100}{r}$$

t represents time

r represents walking rate

