

1. Circle the best explanation for the graph.

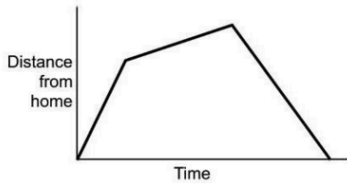
2. Explain Sam's journey to school.

Matching a Graph to a Story

A. Tom took his dog for a walk to the park. He set off slowly and then increased his pace. At the park, Tom turned around and walked slowly back home.

B. Tom rode his bike east from his home up a steep hill. After a while the slope eased off. At the top he raced down the other side.

C. Tom went for a jog. At the end of his road he bumped into a friend and his pace slowed. When Tom left his friend he walked quickly back home.

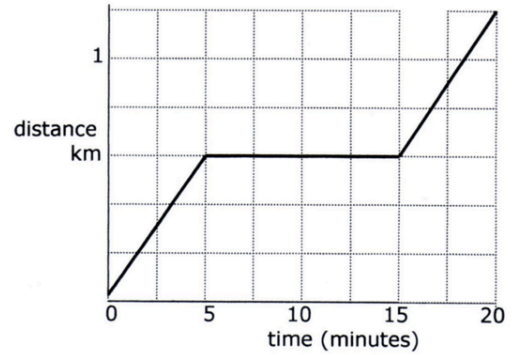


Beta Version

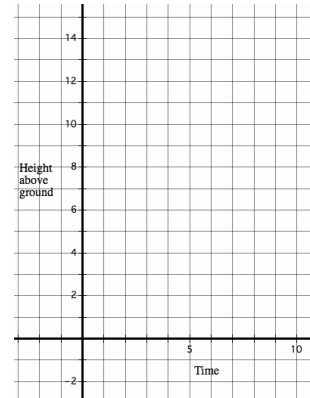
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Projector resources: 1

Graph of Sam's journey to school

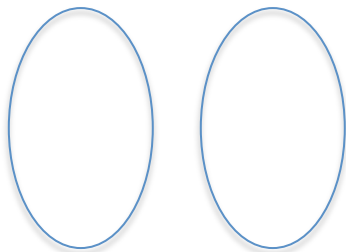


3. Sketch the graph to show the height of an elevator above the ground. Explain what is happening as the elevator moves.



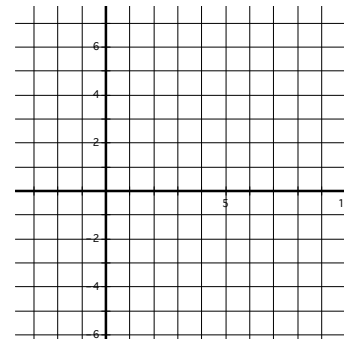
4. Determine if the relation is a function. Use a mapping diagram. Label!

x	y
-4	2
-2	1
0	0
1	2



5. Determine if the relation is a function. Use a graph.

x	y
-3	-2
4	-1
8	-1
4	-2



Find the range for each function when the domain is $\{-2, -1, 0, 1, 2\}$. Place the information in a table of values then graph on the coordinate system provided.

6. $y = 2x - 3$

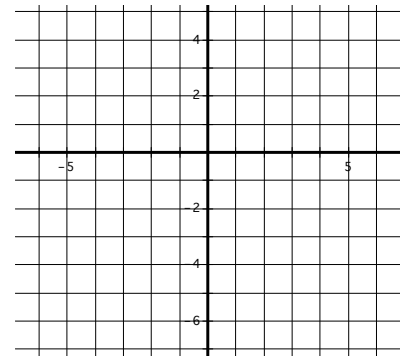
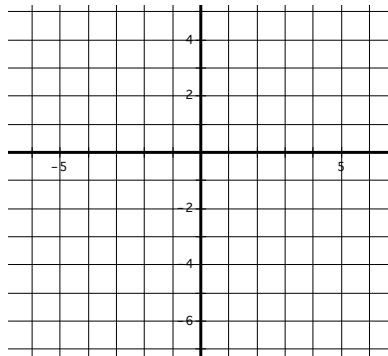
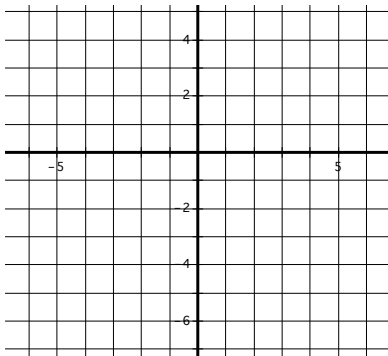
x	y

7. $y = x^2 + 1$

x	y

8. $y = |x|$

x	y



7a. The price for a candy bar \$1.25. Write a function rule to illustrate what is paid when buying candy bars.

7b. Find the price for 5 candy bars.

8a. You are paid \$8.50 per hour to mow lawns. Write a function rule to illustrate what you earn when mowing lawns.

8b. Find the amount of money you earn when you work 3 hours.

9a. The cost to rent a go cart is \$15 plus \$2 per hour. Write a function rule to illustrate what the cost is to rent a go cart.

9b. Find the cost to rent a go cart for 6 hours.

Write the function rule for each table below.

10.

x	y
1	2
2	4
3	6
4	8

11.

x	$f(x)$
2	3
4	5
6	7
8	9

Write an equation of **direct variation** that includes the given point. Your answer should be in the form of $y = kx$ with a number filled in for k .

12. (3, 1)

13. (-2, -5)

Suppose y varies inversely with x . Write an equation of **inverse variation**. Your answer should be in the form of $y = k/x$ with a number filled in for k .

14. (1, 4)

15. (-3, 5)

16. For the examples below, one represents inverse variation while the other represents direct. Decide which is which and justify your answer.

a. A house is painted by a group of volunteers.

b. You are charged \$3.25 for each meal deal.