Math 8

CAASPP Sprint: Functions & Graphing (2024)

Learning Target	I can identify, write, evaluate and graph functions. *(F)*

Writing & Using Equations

Write a linear equation for each table.

a.

x	0	3	6	10
y	2	8	14	22

b.

x	0	3	6	10
y	20	8	−4	−20

c.

x	2	4	6	8
y	5	8	11	14

d.

x	0	3	6	9
y	20	11	2	−7

Determine if the table represents a linear relationship, if yes, then write an equation in slope intercept form.

a.

x	2	4	6	8	10	12	14
y	0	1	2	3	4	5	6

b.

x	1	2	3	4	5	6	7
y	0	3	8	15	24	35	48

Use the equation to complete the table.

$y = -5x + 4$

x	y	(x, y)
−1		
	−11	
2		
	4	

$y = 5x - 14$

x	y
3	
5	
6	
10	

Identify the rate of change (slope) and the initial value (y-intercept)

Equation	Rate of Change	Initial Value
$y = -5x + 4$		
$y = -8 + 7t$		
$y = -2a$		
$y = 6$		

Verifying the solution

Determine whether or not each point lies on the line of the given equation.

A. $(-2, -2)$ $y = 3x + 4$

B. $(-5, -3)$ $y = 2x + 7$

C. $(-2, -1)$ $y = \frac{3}{4}x + \frac{1}{2}$

Determine whether or not each point lies on the graph of $6x + 3y = 15$

D. $(2, 1)$

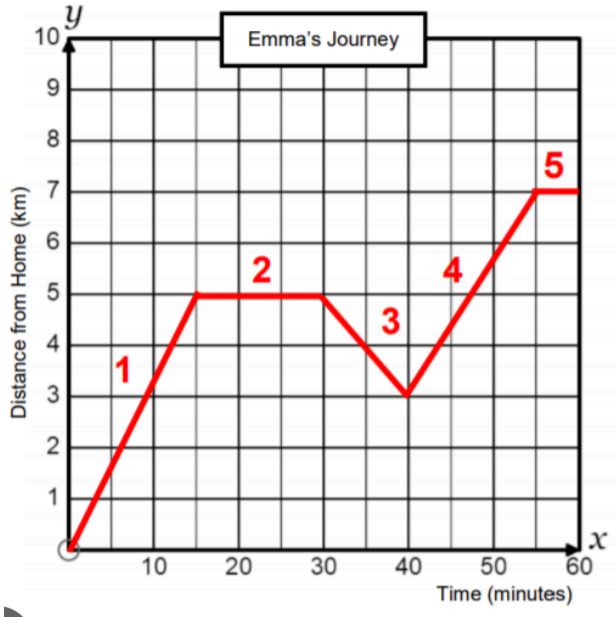
E. $(0, 5)$

F. $(-1, 6)$

G. $(3, -1)$

Interpreting

distance time graphs true or false



A.	During stage 1, Emma travelled at 3 km/minute.
B.	Emma was stationary during stage 2.
C.	The graph shows that Emma reached the top of two hills.
D.	Emma travelled 4000m during Stage 4.
E.	The slowest part of Emma's journey was during stage 3.
F.	Emma's average speed over the whole journey was 7 km/h.
G.	Emma was travelling faster during stage 4 than stage 1.
H.	When she was 5 minutes into her journey, Emma had travelled 3 km.

True Statements: _____

Comparing Functions

Which of these linear functions has the biggest rate of change?

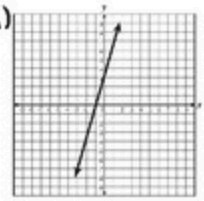
FUNCTION A:

$y = 3x + 2$

FUNCTION B:

x	y
0	-6
2	-10
5	-16
6	-18

Which function has the greatest rate of change?

A) 

B)

x	y
0	9
1	11
2	13
3	15
4	17

C) $y=-3x+10$

A) Function A

B) Function B

C) Function C

D) They have the same rates of change.