Unit 2 Review

8th Grade Math

How to use this power point to study for the test.

- 1. Remember the green slides contain the answers.
- 2. You are not trying to memorize the problems or the answers because the problems will be different tomorrow.
- 3. Your goal is to be able to explain to yourself or someone else how to find the answer so even when the numbers are different you will know the process.
- 4. If you don't know ASK! You can email me or come by my room in the morning. You could also ask a friend. It will help them study if they explain it to you!

Does the following table represent a function?

x (input)	−2	−1	0	1	2
y (output)	4	1	0	1	4

Does the following table represent a function?

x (input)	−2	−1	0	1	2
y (output)	4	1	0	1	4

Yes

Which function is linear? Select all that apply.

A $y = 3x - 2$

B $y = x^2 + 1$

C $y = 1.5 - 0.75x$

D $y = \frac{1}{3}x^3 - 2$

E $y = \frac{5}{x} + 5$

Which function is linear? Select all that apply.

A $y = 3x - 2$

B $y = x^2 + 1$

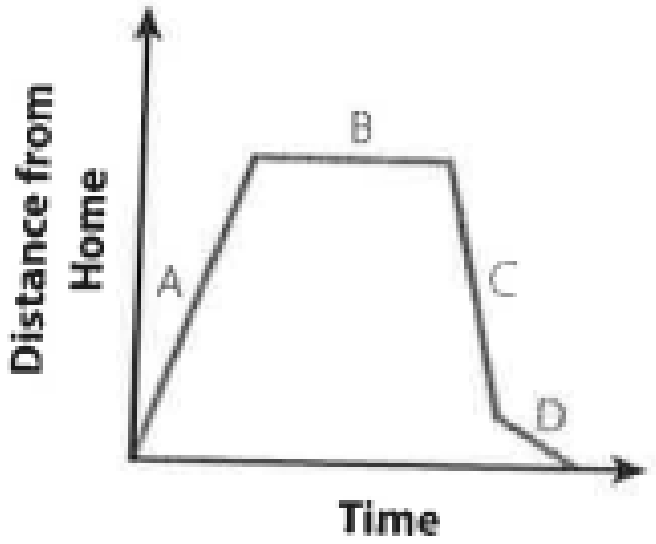
C $y = 1.5 - 0.75x$

D $y = \frac{1}{3}x^3 - 2$

E $y = \frac{5}{x} + 5$

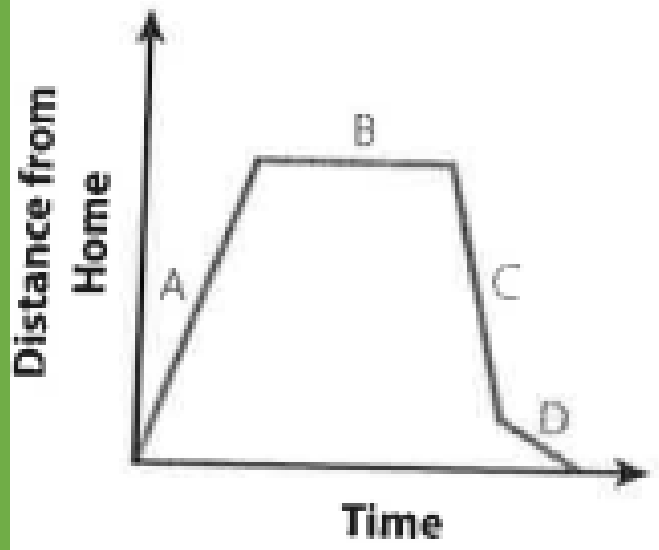
A and C

Jordan rode his bike to the park. The graph shows his distance from home on his trip.



Which section represents Jordan's time at the park?

Jordan rode his bike to the park. The graph shows his distance from home on his trip.



B

Which section represents Jordan's time at the park?

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is the rate of change?

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is the rate of change?

0.1

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is does the rate of change mean in context?

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is does the rate of change mean in context?

$0.10 per additional minute of use

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is the initial value?

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What is the initial value?

40

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

Minutes (*x*)	0	100	200	300	400	500	600
Total Cost (*y*)	40	50	60	70	80	90	100

- What does the initial value mean in context?

A telephone plan charges a regular monthly amount plus charges for the number of minutes of use (x) as shown in the table below.

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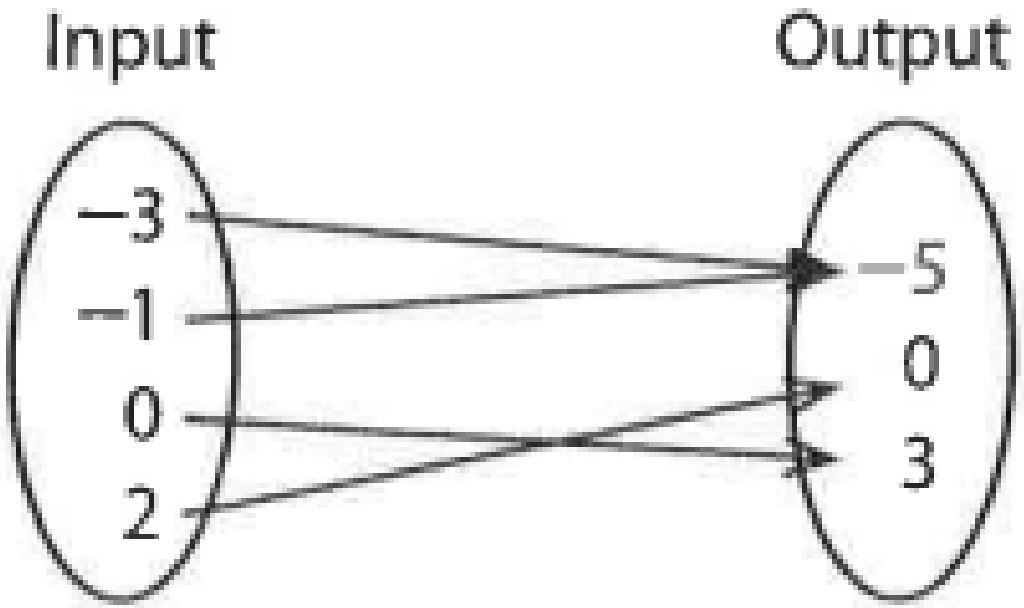
Total Cost (*y*)	40	50	60	70	80	90	100

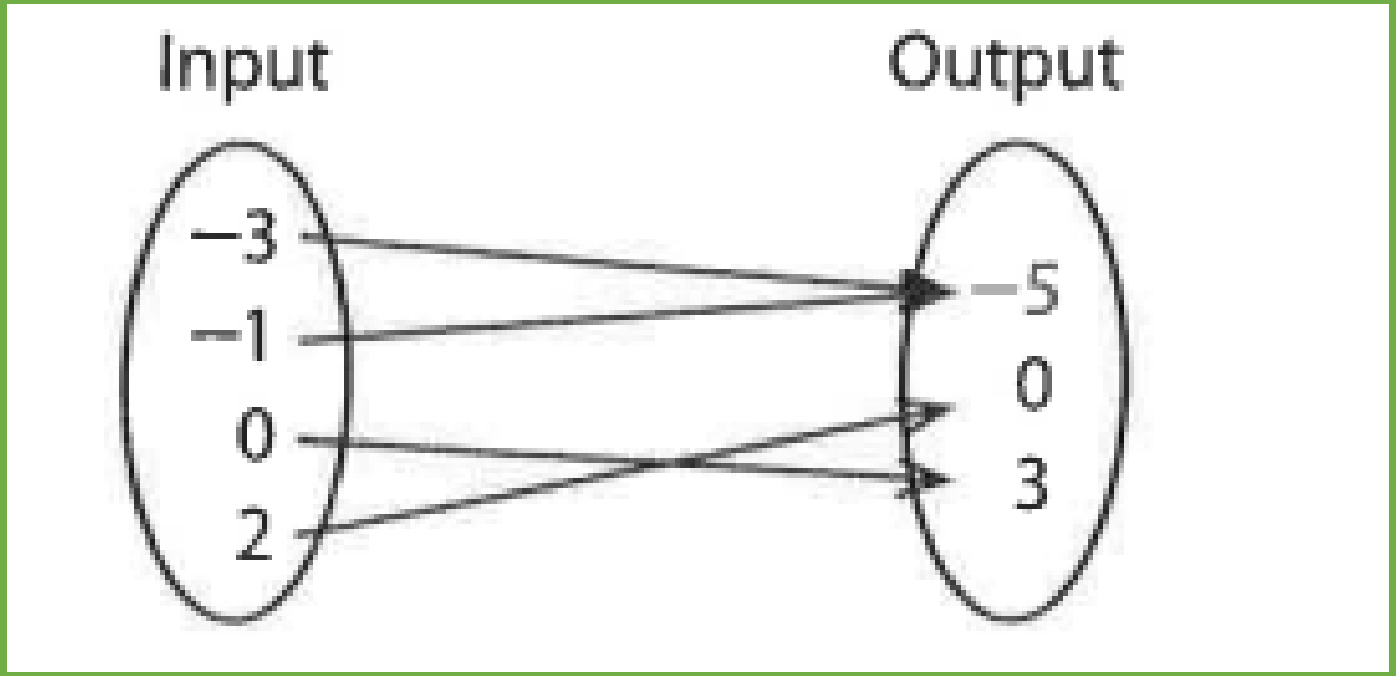
- What does the initial value mean in context?

$40 is the regular monthly amount for 0 minutes

Does the mapping represent a function?



Does the mapping represent a function?



Yes

Which equation describes the function shown in the table?

x	−2	−1	0	1	2
y	−5	−2	1	4	7

A $y = 2x + 1$

B $y = \frac{1}{3}x + 1$

C $y = 3x + 1$

D $y = 3x$

Which equation describes the function shown in the table?

x	−2	−1	0	1	2
y	−5	−2	1	4	7

A $y = 2x + 1$

B $y = \frac{1}{3}x + 1$

C $y = 3x + 1$

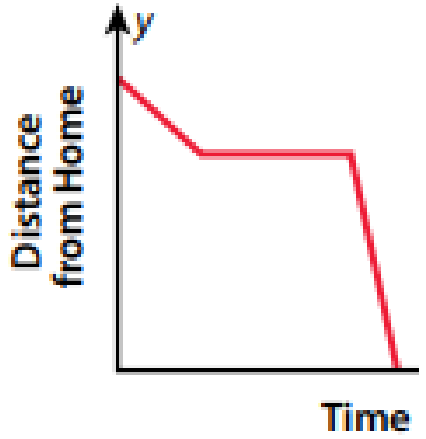
D $y = 3x$

C

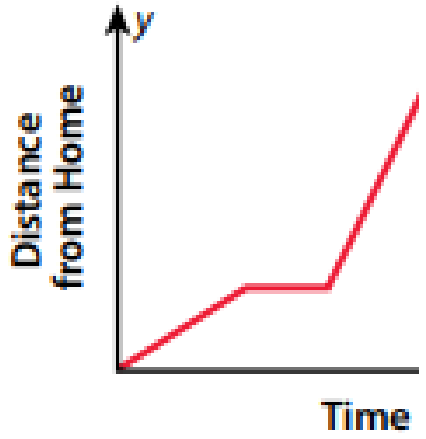
Match the story to the proper graph.

Lenny walks to the bus stop, waits for the bus, and then takes the bus to school.

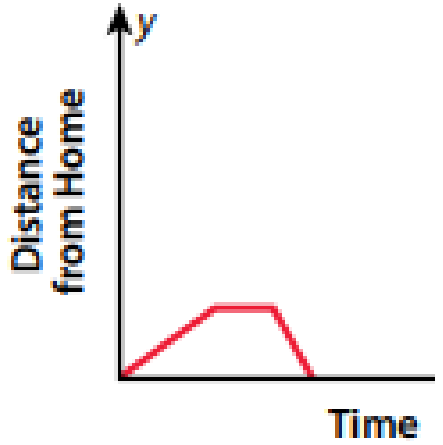
a.



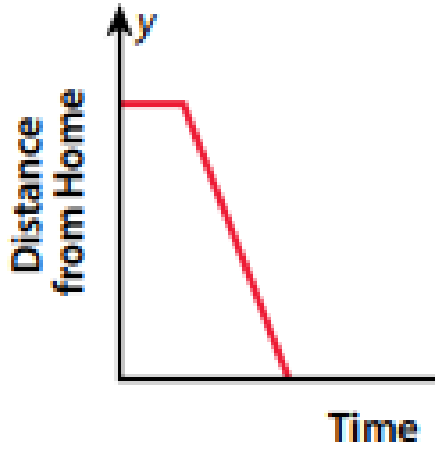
b.



c.



d.

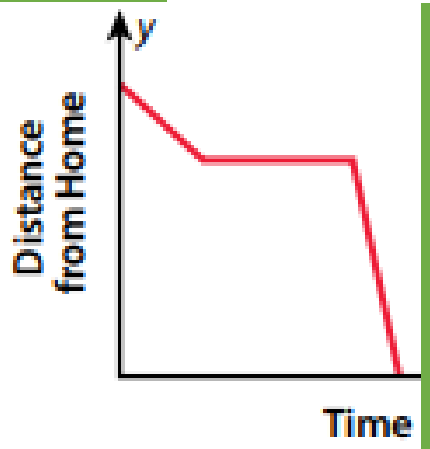


Match the story to the proper graph.

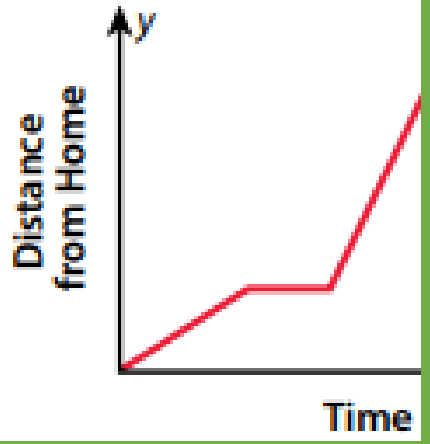
Lenny walks to the bus stop, waits for the bus, and then takes the bus to school.

B

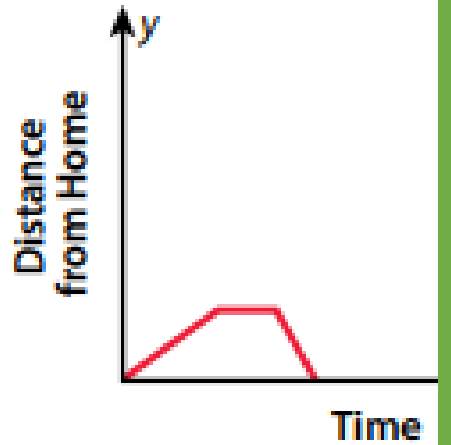
a.



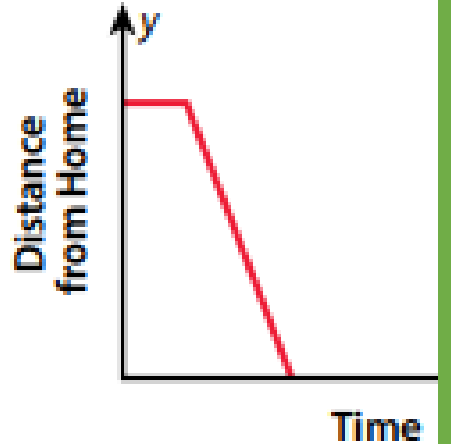
b.



c.



d.



The equation $c = 50 + 35m$ shows the amount c that Dina paid for her health club membership after m months. The table shows the amount Judy paid for her health club membership.

Number of Months	0	1	2	3
Amount Judy Paid	$80	$105	$130	$155

Which statement is true? Select all that apply.

A Dina paid a higher amount to join the health club.

B Judy pays more per month to be a member.

C After 1 month, Judy has paid more than Dina.

D After 4 months, Dina has paid more than Judy.

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C After 1 month, Judy has paid more than Dina.

D After 4 months, Dina has paid more than Judy.

C and D

The Peach Festival charges $12 for admission and $2.25 for each pound of peaches picked. Write an equation for the total cost y if you pick x pounds of peaches.

The Peach Festival charges $12 for admission and $2.25 for each pound of peaches picked. Write an equation for the total cost *y* if you pick *x* pounds of peaches.

Y= 12 + 2.25x

The Peach Festival charges $12 for admission and $2.25 for each pound of peaches picked. Write an equation for the total cost y if you pick x pounds of peaches.

What is the total cost of attending the festival and picking 12 pounds of peaches?

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What is the total cost of attending the festival and picking 12 pounds of peaches?

$39

A hardware store charges a $30 rental fee and $15 per day to rent a power washer. Which equation correctly relates the total cost y to rent the washer for x days?

A $y = 15 + 30x$

B $y = 30 + 15x$

C $y = 30 - \frac{x}{15}$

D $y = 15 - \frac{x}{30}$

A hardware store charges a $30 rental fee and $15 per day to rent a power washer. Which equation correctly relates the total cost y to rent the washer for x days?

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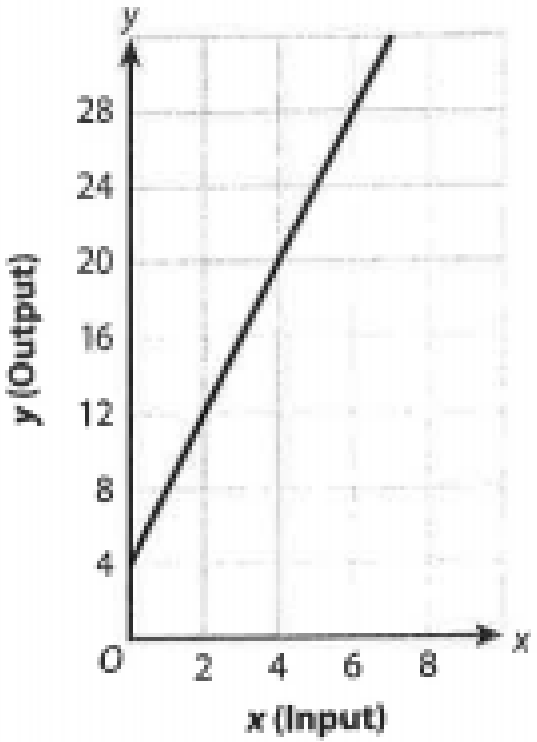
C $y = 30 - \frac{x}{15}$

D $y = 15 - \frac{x}{30}$

B

Compare these two functions.

Function A



Function B

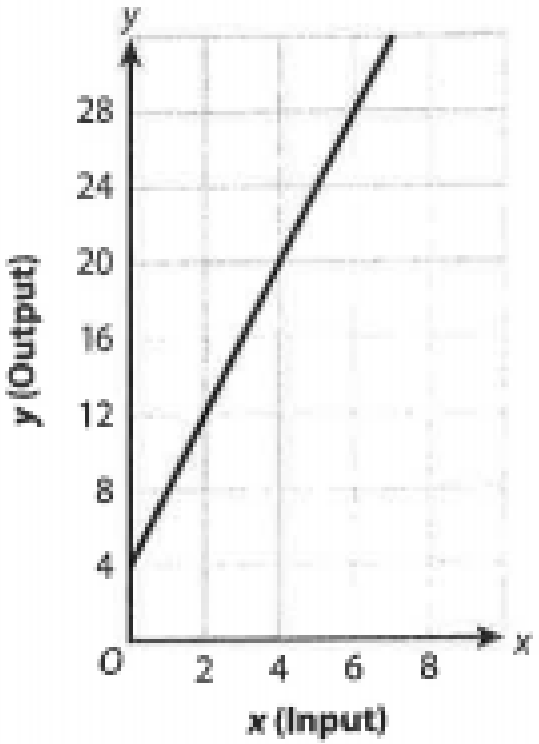
x (input)	0	2	4	6	8	10
y (output)	12	14	16	18	20	22

Part A

Which function shows a greater rate of change?

Compare these two functions.

Function A



Function B

x (input)	0	2	4	6	8	10
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A

Part A

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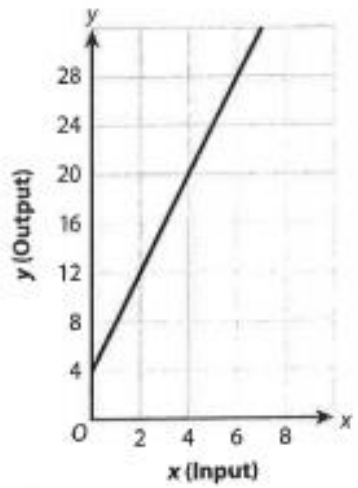

Function B

x (input)	0	2	4	6	8	10
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Which function has a greater initial value?

Compare these two functions.

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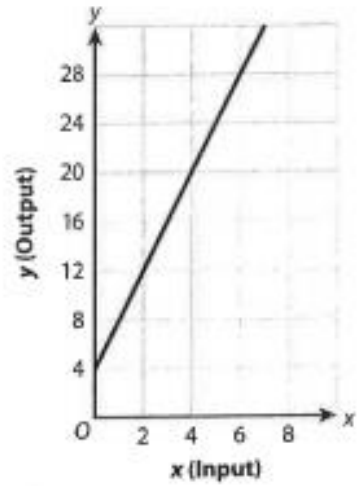


Function B

x (input)	0	2	4	6	8	10
y (output)	12	14	16	18	20	22

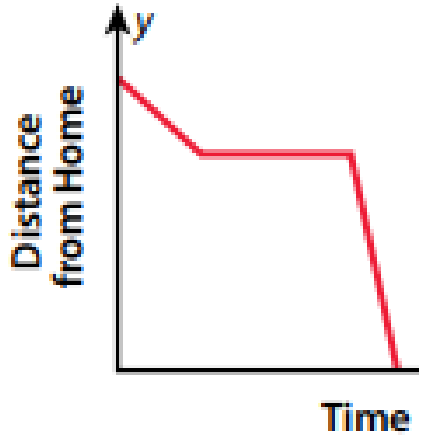
B

Which function has a greater initial value?

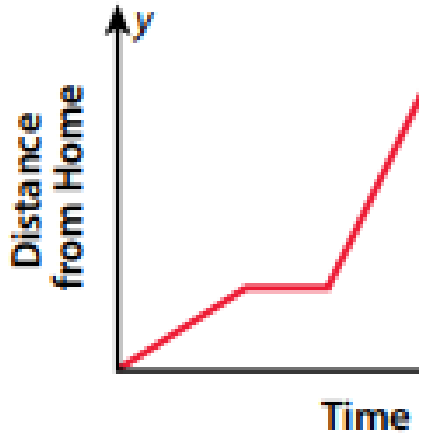
Match the story to the proper graph.

Lenny waits for his father to pick him up after school, and his father drives him home

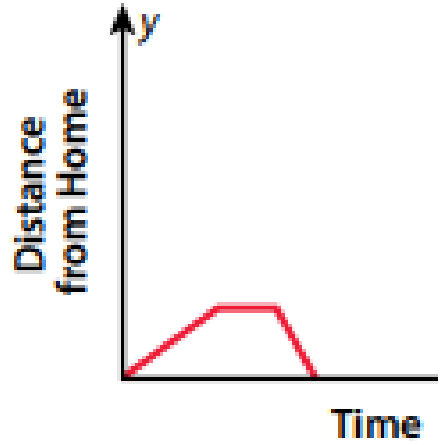
a.



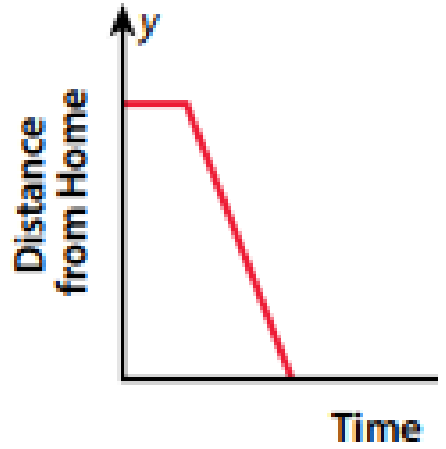
b.



c.



d.

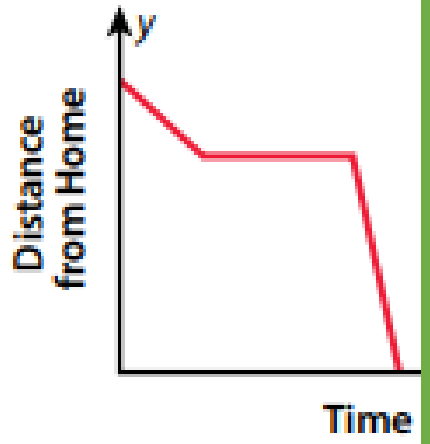


Match the story to the proper graph.

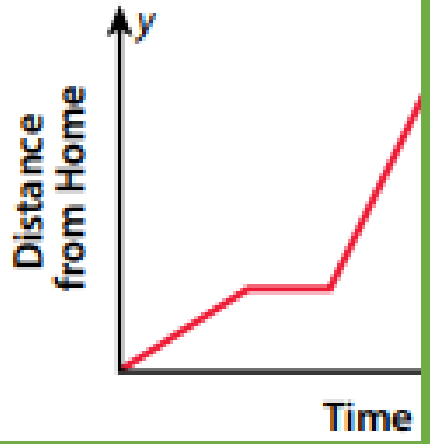
Lenny waits for his father to pick him up after school, and his father drives him home

D

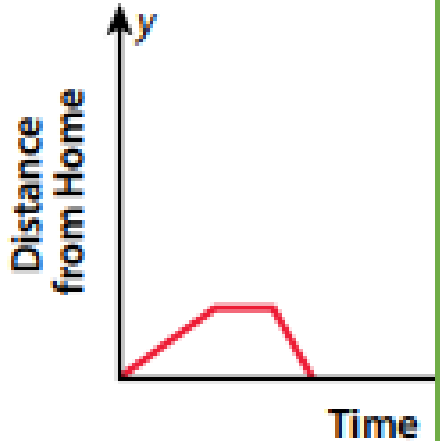
a.



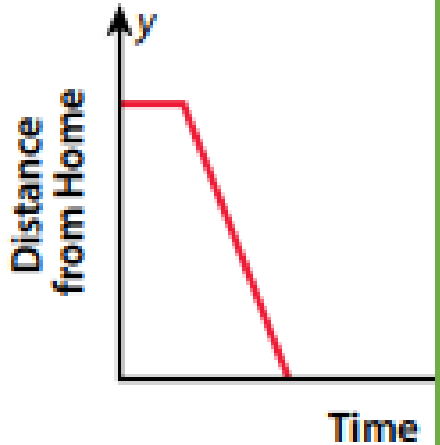
b.



c.



d.



Which of the following equations are linear?

- A. $y^2 = 4x$
- B. $y = |3x + 4|$
- C. $0.98 - 3.4x = y$
- D. $y = \sqrt{8x + 3}$

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- A. $y^2 = 4x$
- B. $y = |3x + 4|$
- C. $0.98 - 3.4x = y$
- D. $y = \sqrt{8x + 3}$

C

Find the slope between the two points.

(-2, -3) and (-1, -6)

Find the slope between the two points.

(-2, -3) and (-1, -6)

-3

Which of the following functions is linear?

a.

x	y
0	7
1	4
2	3
3	4

b.

x	y
0	2
1	4
2	8
3	16

c.

x	y
0	5
1	10
3	20
4	25

d.

x	y
0	3
1	6
5	9
8	12

Which of the following functions is linear?

a.

x	y
0	7
1	4
2	3
3	4

C

b.

x	y
0	2
1	4
2	8
3	16

c.

x	y
0	5
1	10
3	20
4	25

d.

x	y
0	3
1	6
5	9
8	12

Write the equation of the line that passes through the following points.

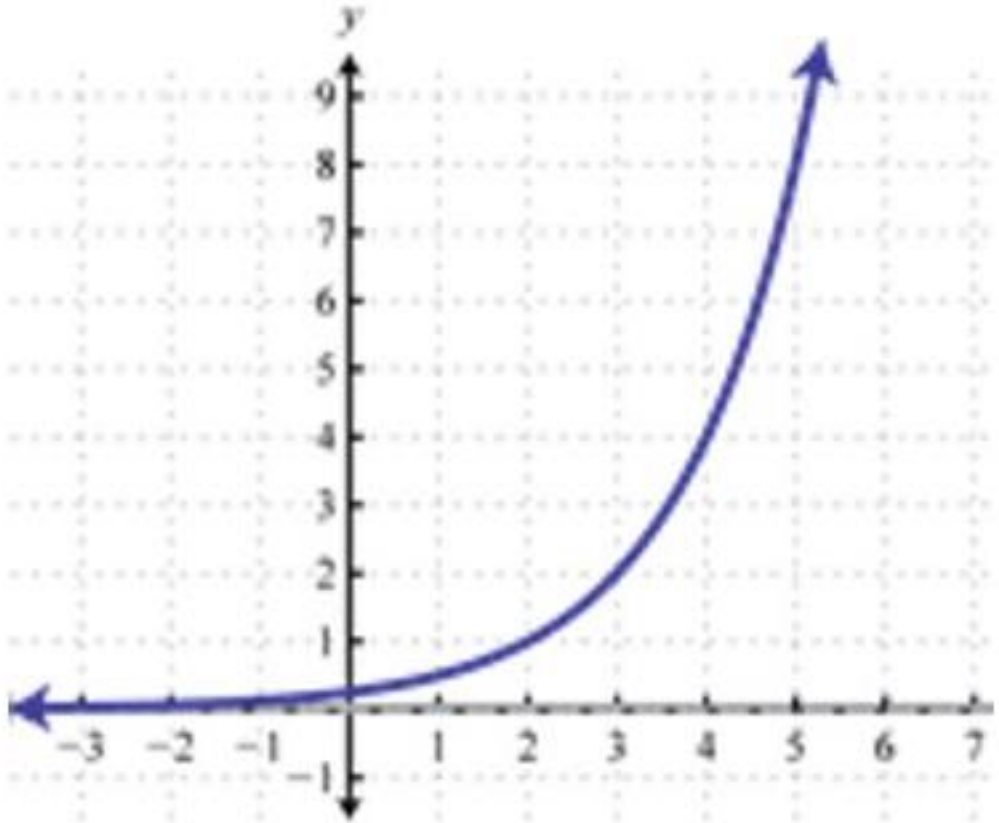
(-4, 8) and (0, 5)

Write the equation of the line that passes through the following points.

(-4, 8) and (0, 5)

$Y = -\frac{3}{4}x + 5$

Is the following relation a function?



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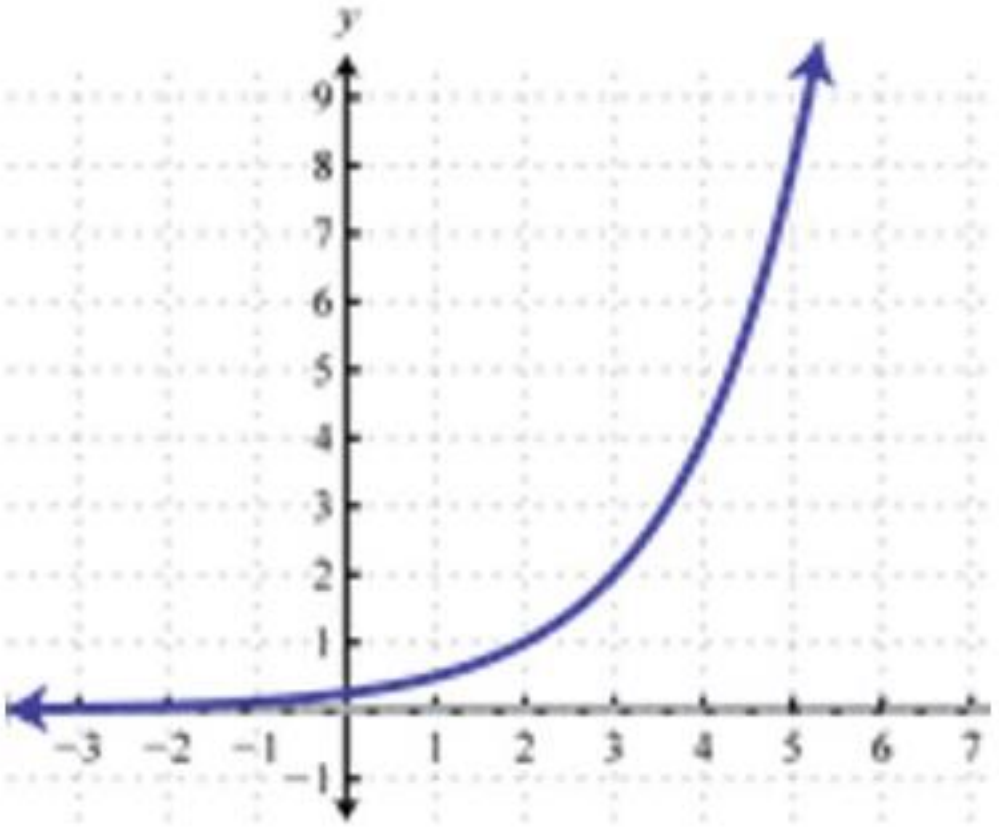
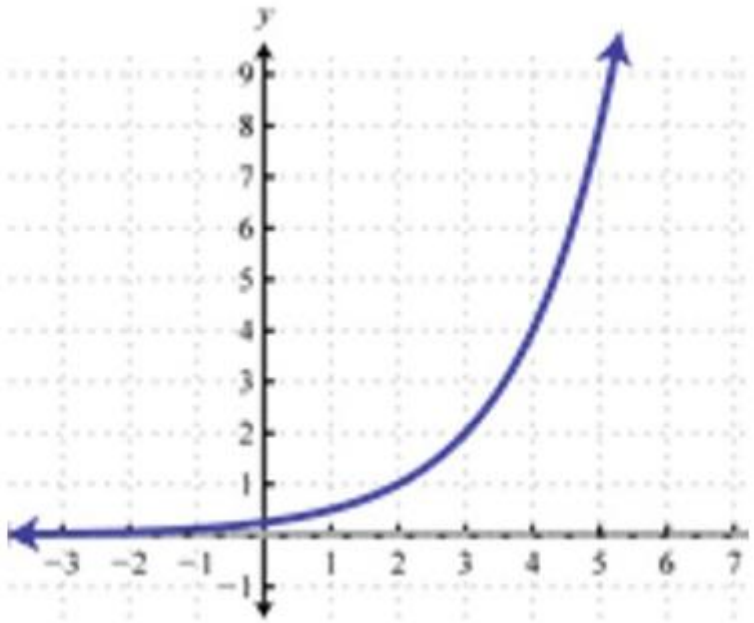
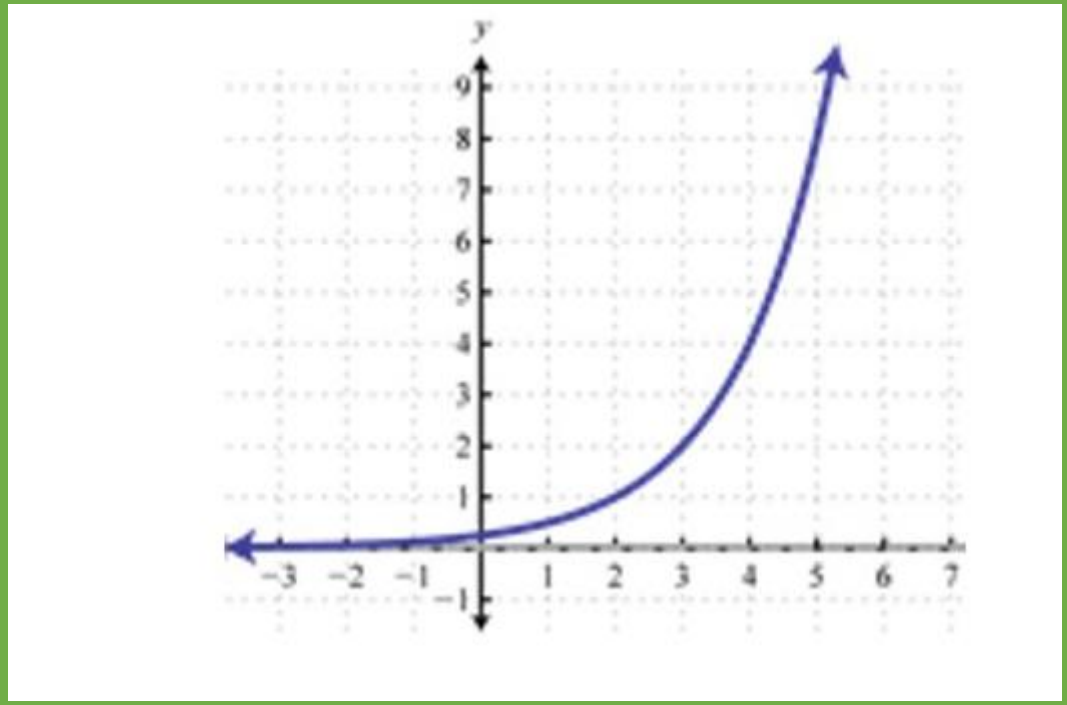


Yes

Is the following function linear?



Is the following function linear?



No

Write the definition of a function.

Write the definition of a function.

Every input has exactly one output.