

Chapter 9 Test

For #1 to #5, select the best answer.

1. Which word describes $y = x + 2$?

A constant **B** equation **C** expression **D** variable

2. The table shows the number of lug nuts in relation to the number of tires. Which equation represents the linear relation?

A $n = t + 5$

B $t = n + 5$

C $n = 5t$

D $t = 5n$

Tires (t)	Lug Nuts (n)
1	5
2	10
3	15
4	20

3. Which table of values represents the graph shown?

A

x	y
0	4
1	5
2	6
3	7
4	8

B

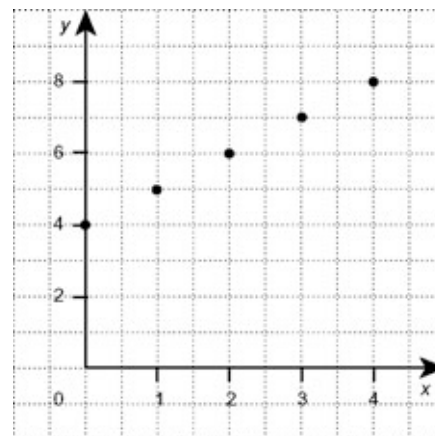
x	y
0	4
1	5
2	6
3	7
4	7

C

x	y
0	4
1	5
2	7
3	6
4	8

D

x	y
0	4
1	6
2	6
3	7
4	8



4. Which table of values represents the linear relation represented by the equation $y = 2x - 3$?

A

x	y
0	3
1	5
2	1

B

x	y
0	3
1	1
2	0

C

x	y
0	-2
1	-1
2	0

D

x	y
0	-3
1	-1
2	1

Name: _____

Date: _____

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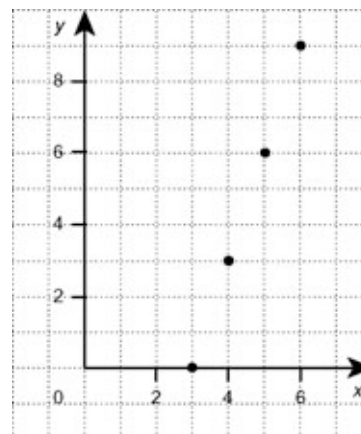
5. Which equation represents the graph shown?

A $y = 3 - x$

B $y = x - 3$

C $y = 2x - 6$

D $y = 3x - 9$

**Short Answer****6.** Copy and complete the following tables.

a)

$y = 4 - x$	
x	y
0	
1	
2	
3	
4	

b)

$y = x + 5$	
x	y
-3	
	4
0	
1	
	8

c)

$y = 2x$	
x	y
	0
	2
	4
	8
	16

d)

x	y
	-6
-1	
	0
1	
	6

7. a) Draw and label a graph of the equation $y = 3x - 2$, for $x = 1, 2, 3$, and 4 .**b)** Is it a linear relation? Use two ways to explain your answer.**Extended Response****8.** Tina began riding her all-terrain vehicle (ATV). After 5 s, her speed was 10 km/h. After 10 s, her speed was 25 km/h. After 15 s, her speed was 30 km/h. After 20 s, her speed was 35 km/h.**a)** Make a table of values that represents Tina's ATV ride.**b)** Graph the table of values.**c)** Is there a linear relation between time and speed during Tina's ATV ride? Explain.**d)** What must happen for there to be a linear relation between time and speed?