



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Algebra and Geometry

Class: 7

Date: 10.07.20

Duration: 40 min

Worksheet Solutions 53

Full Marks: 15

## GRAPHS

Choose the Correct options:

1. What algebraic equation shows the relationship between the independent and dependent variables?

- (a)  $y = ax$
- (b)  $y = x + 12$
- (c)  $y = -3x$**
- (d)  $y = 5$

x	y
-3	9
-2	6
-1	3
0	0
1	-3
2	-6
3	-9

2. Which equation matches the table?

- (a)  $y = x$
- (b)  $y = 5x$
- (c)  $y = x - 4$
- (d)  $y = x + 4$**

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

3. Which equation matches the table?

- (a)  $y = x + 5$**
- (b)  $y = 5x$
- (c)  $y = x - 5$
- (d)  $x = y - 5$

x	y
0	5
1	6
2	7
3	8
4	9

4. Nancy can type 50 words per minute. Look at the table below to write an equation that matches the data.

- (a)  $m = 50 + w$
- (b)  $w = 50m$**
- (c)  $w = 50 + m$
- (d)  $m = 50 - w$

Minutes (m)	Words (w)
1	50
2	100
3	150

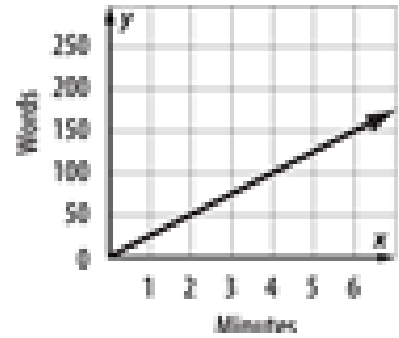
5.  $y = x - 6$

What is the missing number?

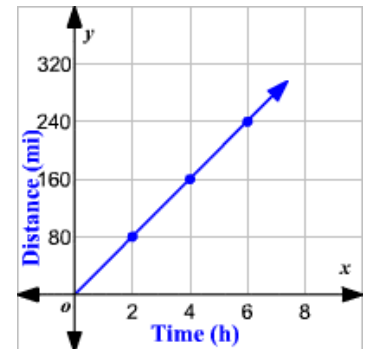
- (a) 12**
- (b) 10
- (c) 14
- (d) 13

x	y
21	15
18	
15	9
13	7
11	5

6. Choose the best explanation
- (a) Taylor can write 6 words per minute
  - (b) Taylor can write 25 words per minute**
  - (c) Taylor can write 50 words per minute
  - (d) Taylor can write 150 words per minute



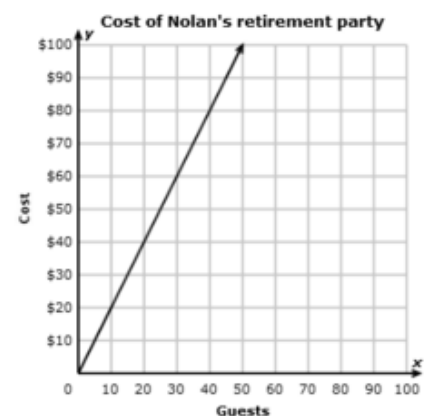
7. What is the rate of change (unit rate) for the following graph?
- (a) 80
  - (b) 20
  - (c) 40**
  - (d) 160



8. What is the constant of proportionality (in miles per hour) based on the table?
- (a) 45**
  - (b) 90
  - (c) 135
  - (d) 2

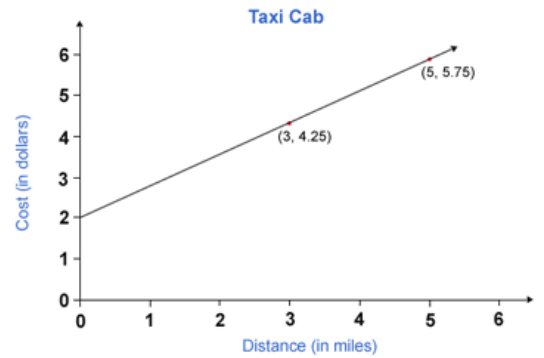
Time (hours)	Distance (miles)
2	90
3	135
5	225
6	270

9. Is the graph proportional or non proportional?
- (a) proportional**
  - (b) non proportional
  - (c) both
  - (d) neither



10. Is the graph proportional or non proportional?

- (a) **proportional**
- (b) non proportional
- (c) both
- (d) neither



11. What is the constant of Proportionality for this table?

- (a) 1/9
- (b) **9**
- (c) 8

Hours	Money
0	\$0
1	\$9
2	\$18
3	\$27
4	\$36

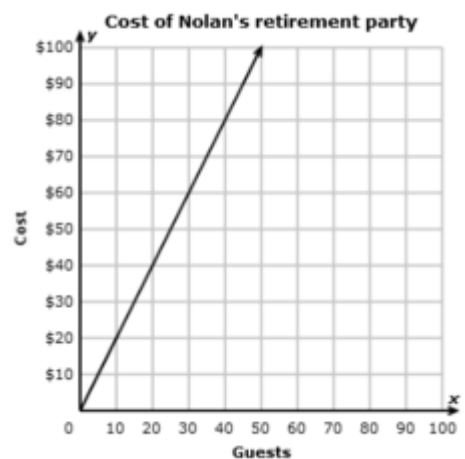
12. What is the function of the table?

- (a)  **$y=3x+1$**
- (b)  $y=4x-2$
- (c)  $y=x+1$
- (d)  $y=x+7$

x	y
0	1
3	10
4	13
5	16
6	19

13. What is the equation of the line?

- (a)  $y = 20x$
- (b)  $y = x + 20$
- (c)  **$y = 2x$**
- (d)  $y = x + 2$



14. You earn \$18 for every hour you work. Which equation represents this function?

(a)  $y = (18/2)x + 0$

**(b)  $y = 18x$**

(c)  $y = 2x + 18$

(d)  $y = 18x + 2$

15. Bob has \$150 in his savings account and saves \$40 per month.

(a)  $150 + 40$

**(b)  $40x + 150$**

(c)  $150x + 40$

(d)  $40x + 15$