

Name: _____

Class/Period: _____

Assignment: MM ALGEBRA ASSIGNMENT 3

Teacher: Villegas

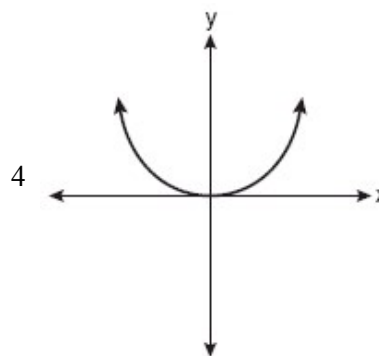
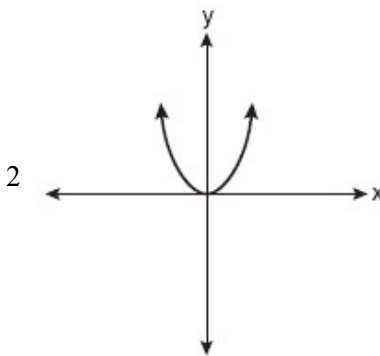
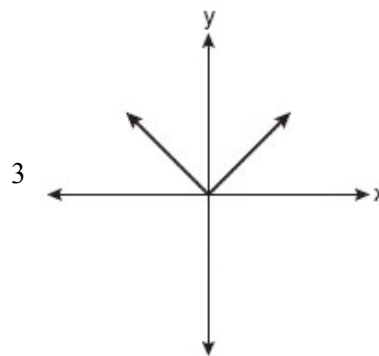
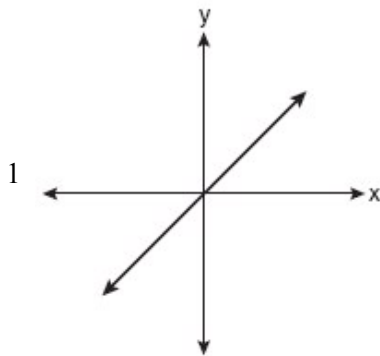
1 The expression: $\frac{12z^4 + 20z^3 - 4z^2}{-4z^2}$, $z \neq 0$, is equivalent to

- 1 $-4z^2$
- 2 $-3z^2 - 5z$
- 3 $-3z^2 - 5z + 1$
- 4 $-3z^2 - 5z - 1$

2 If 321,000,000,000 is written in the form 3.21×10^n , what is the value of n ?

- 1 9
- 2 11
- 3 -9
- 4 -11

3 Which graph represents a linear function?



4 A school wants to add a coed soccer program. To determine student interest in the program, a survey will be taken. In order to get an unbiased sample, which group should the school survey?

- 1 every third student entering the building
- 2 every member of the varsity football team
- 3 every member in Ms. Zimmer's drama classes
- 4 every student having a second-period French class

5 Which statement is true about the data set 3, 4, 5, 6, 7, 7, 10?

- 1 mean = mode
- 2 mean > mode
- 3 mean = median
- 4 mean < median

6 Which table represents a function?

1

x	2	4	2	4
f(x)	3	5	7	9

2

x	0	-1	0	1
f(x)	0	1	-1	0

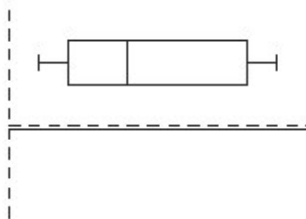
3

x	3	5	7	9
f(x)	2	4	2	4

4

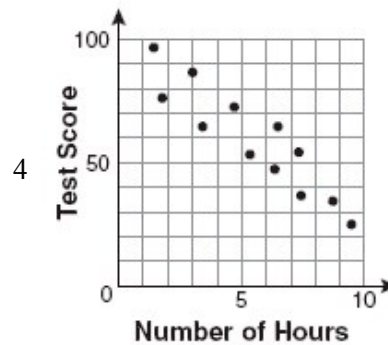
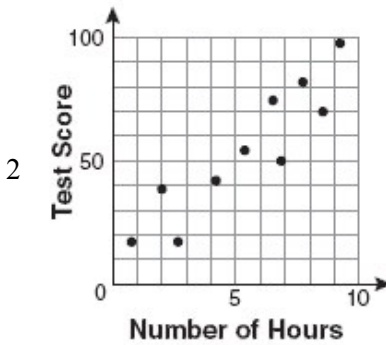
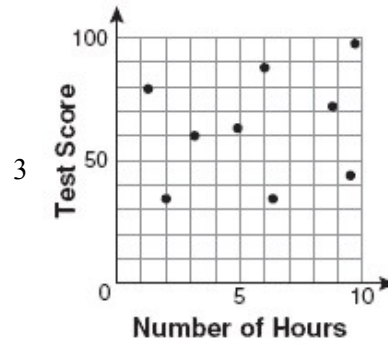
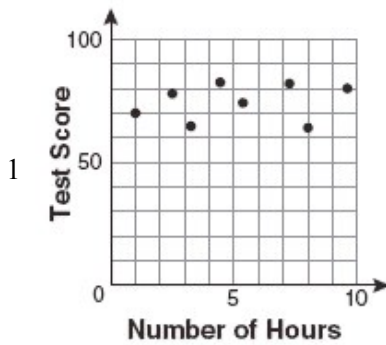
x	0	1	-1	0
f(x)	0	-1	0	1

7 The accompanying diagram is an example of which type of graph?



- 1 bar graph
- 2 stem-and-leaf plot
- 3 histogram
- 4 box-and-whisker plot

- 8 There is a negative correlation between the number of hours a student watches television and his or her social studies test score. Which scatter plot below displays this correlation?



- 9 Jack bought 3 slices of cheese pizza and 4 slices of mushroom pizza for a total cost of \$12.50. Grace bought 3 slices of cheese pizza and 2 slices of mushroom pizza for a total cost of \$8.50. What is the cost of one slice of mushroom pizza?

- 1 \$1.50
- 2 \$2.00
- 3 \$3.00
- 4 \$3.50

- 10 What is the product of $-3x^2y$ and $(5xy^2 + xy)$?

- 1 $-15x^3y^3 - 3x^3y^2$
- 2 $-15x^3y^3 - 3x^3y$
- 3 $-15x^2y^2 - 3x^2y$
- 4 $-15x^3y^3 + xy$

- 11 Pam is playing with red and black marbles. The number of red marbles she has is three more than twice the number of black marbles she has. She has 42 marbles in all. How many red marbles does Pam have?

- 1 13
- 2 15
- 3 29
- 4 33

12 What is half of 2^6 ?

- 1 1^3
- 2 1^6
- 3 2^3
- 4 2^5

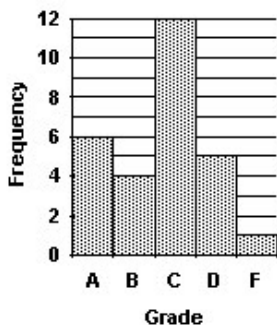
13 Which value of x makes the expression $\frac{x+4}{x-3}$ undefined?

- 1 -4
- 2 -3
- 3 3
- 4 0

14 What is the slope of the line that passes through the points $(-6,1)$ and $(4,-4)$?

- 1 -2
- 2 2
- 3 $-\frac{1}{2}$
- 4 $\frac{1}{2}$

15 The histogram shows the grade distribution for a mathematics test given to Ms. Keith's class.



How many students are in the class?

- 1 12
- 2 23
- 3 28
- 4 33

16 Rosario and Enrique are in the same mathematics class. On the first five tests, Rosario received scores of 78, 77, 64, 86, and 70. Enrique received scores of 90, 61, 79, 73, and 87. How much higher was Enrique's average than Rosario's average?

- 1 15 points
- 2 2 points
- 3 3 points
- 4 4 points

17 What is the value of p in the equation $2(3p - 4) = 10$?

- 1 1
- 2 $2\frac{1}{3}$
- 3 3
- 4 $\frac{1}{3}$

18 A member of the solution set of $-1 \leq x < 4$ is

- 1 -1
- 2 -2
- 3 5
- 4 4

19 Which table represents a relation that is not a function?

1

Input	Output
-4	16
-2	4
2	4
4	16

3

Input	Output
2	1
4	2
4	3
8	4

2

Input	Output
-1	6
-2	15
-3	24
-4	33

4

Input	Output
1	-15
5	0
9	5
10	25

20 Which is an illustration of the associative property?

- 1 $ab = ba$
- 2 $a(b + c) = ab + ac$
- 3 $a(bc) = (ab)c$
- 4 $a + 0 = a$

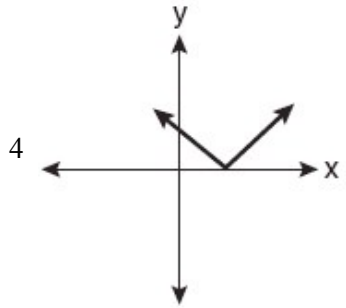
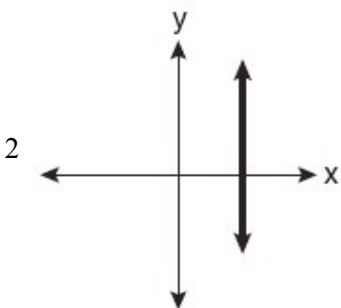
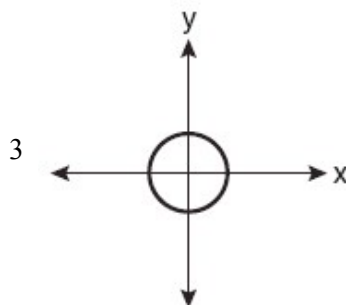
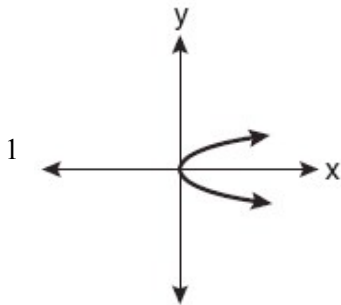
21 Solve for x : $3x - 5 = x + 7$

- 1 -6
- 2 6
- 3 3
- 4 -3

22 What is the slope of the line with the equation $y = \frac{3}{4}x + 4$?

- 1 $\frac{3}{4}$
- 2 $\frac{3}{4}x$
- 3 4
- 4 $4x$

23 Which graph represents a function?



24 Factored, the expression $16x^2 - 25y^2$ is equivalent to

- 1 $(4x - 5y)(4x + 5y)$
- 2 $(4x - 5y)(4x - 5y)$
- 3 $(8x - 5y)(8x + 5y)$
- 4 $(8x - 5y)(8x - 5y)$

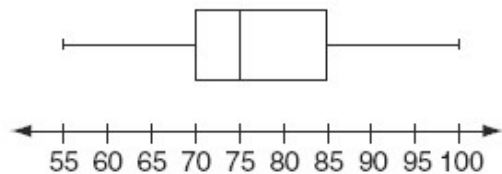
25 Molly earned \$178.50 last week. She makes \$8.50 an hour. How many hours did Molly work last week?

Answer: hours

26 In six computer games, Olga scored 122, 138, 130, 98, 102, and 124. What was the mean of her scores?

- 1 119
- 2 123
- 3 128
- 4 130

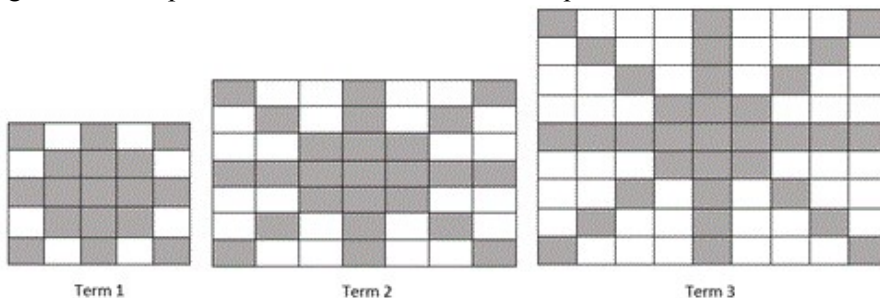
- 27 The accompanying box-and-whisker plot represents the scores earned on a science test.



What is the median score?

- 1 70
- 2 75
- 3 77
- 4 85

- 28 The diagram below represents the first three terms in a sequence.



Assuming the pattern continues, which formula determine a_n the number of shaded rectangles in the n th term?

- 1 $a_n = 8n + 9$
- 2 $a_n = 8n + 1$
- 3 $a_n = 10n + 3$
- 4 $a_n = 9n - 1$

- 29 What is the additive inverse of $\frac{2}{3}$?

- 1 $-\frac{2}{3}$
- 2 $\frac{1}{3}$
- 3 $-\frac{3}{2}$
- 4 $\frac{3}{2}$

- 30 What is the value of $\frac{x^2 - 4y}{2}$, if $x = 4$ and $y = -3$?

- 1 -2
- 2 2
- 3 10
- 4 14

31 When $3g^2 - 4g + 2$ is subtracted from $7g^2 + 5g - 1$, the difference is

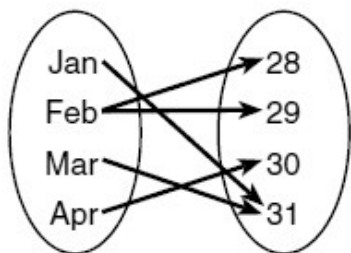
- 1 $-4g^2 - 9g + 3$
- 2 $4g^2 + g + 1$
- 3 $4g^2 + 9g - 3$
- 4 $10g^2 + g + 1$

32 What is the domain of the relation shown below?

$$\{(4,2), (1,1), (0,0), (1,-1), (4,-2)\}$$

- 1 $\{0, 1, 4\}$
- 2 $\{-2, -1, 0, 1, 2\}$
- 3 $\{-2, -1, 0, 1, 2, 4\}$
- 4 $\{-2, -1, 0, 0, 1, 1, 1, 2, 4, 4\}$

33 A mapping is shown in the diagram below.



This mapping is

- 1 a function, because Feb has two outputs, 28 and 29
- 2 a function, because two inputs, Jan and Mar, result in the output 31
- 3 not a function, because Feb has two outputs, 28 and 29
- 4 not a function, because two inputs, Jan and Mar, result in the output 31

34 For which equation will $f(-2) = -6$?

- 1 $f(x) = x^3 + x$
- 2 $f(x) = x^4 - 5x$
- 3 $f(x) = 4x^3 + 6x^2 - x$
- 4 $f(x) = -3x^3 - 4x^2 + 4x$

35 Which relation does *not* represent a function?

