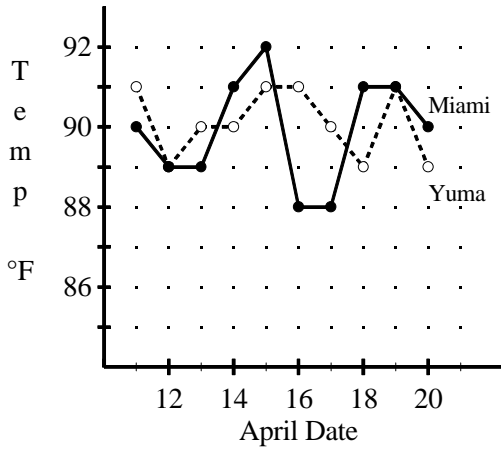


Name _____
 Algebra I Pre-test

- Find the mean, median, and mode of the data in the following sample.
 9, 4, 26, 4, 6, 7, 19, 4, 8, 23
 [A] 17.5, 11, 4 [B] 7.5, 11, 4 [C] 4, 7.5, 11 [D] 11, 7.5, 4
- The double line graph below compares high temperatures in Yuma and Miami in April. From the days listed, use the graph below to determine the date that Yuma's temperature was lower than Miami's.



- [A] April 16 [B] April 12 [C] April 11 [D] April 18
- Which statement fits the data below?

Cars Washed	Hours
1	0.25
2	0.5
3	0.75
4	1

[A] hours worked = $0.25 \div$ cars washed [B] hours worked = $15 \cdot$ cars washed
 [C] hours worked = cars washed \cdot 0.25 [D] hours worked = $4 \div$ cars washed
 [E] hours worked = cars washed \div 0.25
 - Use an equation to model the sentence.
 How many raisins are left in a jar of 65 raisins after you have eaten some?
 [A] $R = 65 - N$ [B] $R = \frac{65}{N}$ [C] $R = 65 + N$ [D] $R = \frac{N}{65}$

Name _____

Algebra I Pre-test

Simplify:

5. $2^3 \times 14 + 10 \div 2$ [A] 117 [B] 96 [C] 114 [D] 61

6. $\left[\frac{3 + (-7)}{-2 - 6} \right] \left[\frac{4 + (-12)}{6 - 5} \right]$ [A] 8 [B] -4 [C] 16 [D] 4

7. Evaluate $\frac{y}{2x} - z$ for $x = 6$, $y = 24$, and $z = 1$. [A] 3 [B] 1 [C] -4 [D] 13

8. Add: $3 + (-14)$ [A] 11 [B] -11 [C] 17 [D] -17

9. Simplify: $|2|$ [A] $-\frac{1}{2}$ [B] 2 [C] $\frac{1}{2}$ [D] -2

10. Evaluate the expression for $a = -2$ and $b = -4$.

$$|a| + |5b|$$

[A] 22 [B] 18 [C] -22 [D] -18

11. Simplify: $(-9)^2$ [A] 18 [B] -81 [C] 81 [D] -18

12. If $\frac{16}{5}$, $\frac{11}{6}$, $\frac{23}{4}$, and $\frac{19}{2}$ are placed in order from least to greatest, which would be first?

[A] $\frac{23}{4}$ [B] $\frac{11}{6}$ [C] $\frac{19}{2}$ [D] $\frac{16}{5}$

13. Evaluate: $\frac{2}{3}u - v$ for $u = 1.5$ and $v = 1.3$

[A] 1.7 [B] 0.13 [C] -0.8 [D] -0.3

Name _____
Algebra I Pre-test

14. If $A = \begin{bmatrix} -3 & 1 & -1 \\ -2 & 8 & 9 \\ 7 & -6 & -7 \end{bmatrix}$ and $B = \begin{bmatrix} 9 & -7 & 2 \\ 3 & 5 & -6 \\ 1 & 6 & 8 \end{bmatrix}$, find $A - B$.

[A] $\begin{bmatrix} 6 & -6 & 1 \\ 1 & 13 & 3 \\ 8 & 0 & 1 \end{bmatrix}$

[B] $\begin{bmatrix} -12 & 8 & -3 \\ -5 & 3 & -15 \\ 6 & -12 & 15 \end{bmatrix}$

[C] $\begin{bmatrix} 6 & -6 & 1 \\ 1 & 13 & 1 \\ 8 & 0 & 3 \end{bmatrix}$

[D] $\begin{bmatrix} -12 & 8 & -3 \\ -5 & 3 & 15 \\ 6 & -12 & -15 \end{bmatrix}$

15. Construct a scatter plot to show the relationship between minutes spent studying and test scores.

Study Time (min.)	11	13	16	18	22	24	29	31
Test Score	64	63	66	63	64	65	67	69

16. What kind of correlation would you expect from the ordered pair (student's hair color, student's high school grades)?

[A] positive correlation

[B] no correlation

[C] negative correlation

[D] none of these

17. Identify the discrete data.

[A] the length of a caterpillar during a week

[B] the temperature of the water in the local river during the day

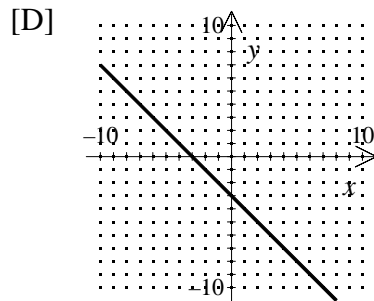
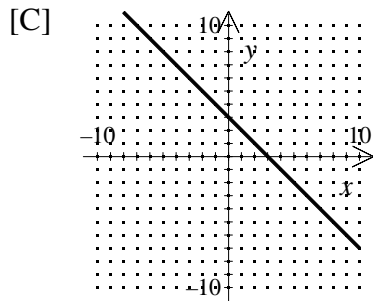
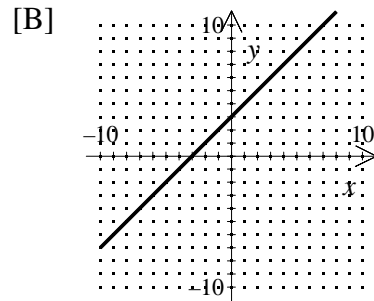
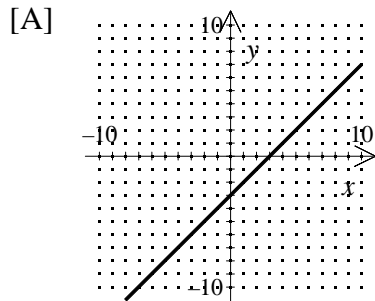
[C] the wind speed during a particular day

[D] the time you take your dog for a walk each day

Name _____
Algebra I Pre-test

18. Which of the following graphs is the graph of the pairs of numbers in the table?

x	0	3	6	9
y	-3	0	3	6



19. Evaluate the function rule $y = x^3 + 3x^2 - 23$ for $x = -1$.

[A] -21

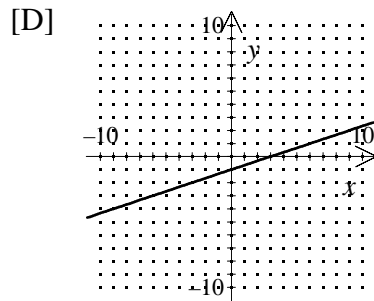
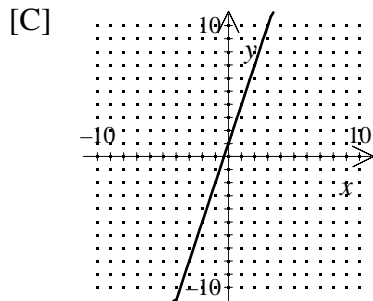
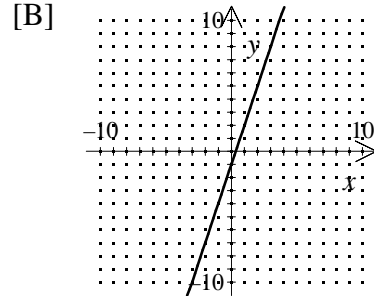
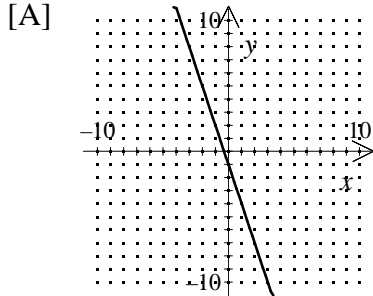
[B] -27

[C] -22

[D] -25

Name _____
 Algebra I Pre-test

20. Which of the following represents the graph of $g(x) = 3x - 1$?



21. Model the rule with a table of values.

$$-9x^2 - 18x$$

[A]

x	-2	-1	0	1
$f(x)$	0	-9	2	-27

[B]

x	-2	-1	0	1
$f(x)$	0	9	0	-27

[C]

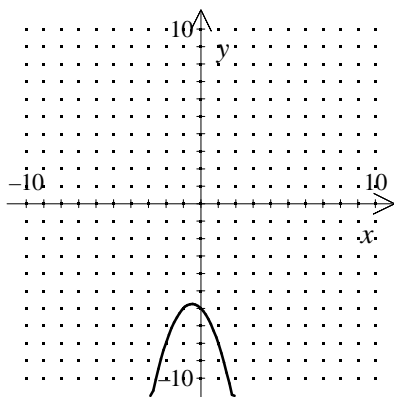
x	-2	-1	0	1
$f(x)$	2	6	0	-28

[D]

x	-2	-1	0	1
$f(x)$	0	9	-2	27

Name _____
Algebra I Pre-test

22. To what family of functions does the graph belong?



[A] not a function

[B] linear functions

[C] quadratic functions

[D] absolute value functions

23. A single six-sided fair die is tossed. Find the probability of obtaining a number greater than 3.

[A] 1

[B] $\frac{1}{6}$

[C] $\frac{5}{6}$

[D] $\frac{1}{2}$

Solve:

24. $x + 2.3 = 6.3$ [A] 14.49 [B] 3 [C] 4 [D] 8.6

25. $6x + 3 = 21$ [A] 24 [B] 18 [C] 3 [D] 4

26. $-4x + 17 + 6x + 17 = 2$ [A] -18 [B] 16 [C] 18 [D] -16

27. Multiply: $-6(x + 6)$

[A] $-6x + 36$

[B] $-6x - 36$

[C] $-6x - 6$

[D] $-6x + 6$

28. Solve: $\frac{6}{7}x = -42$ [A] -49 [B] 49 [C] 36 [D] -36

29. 6 is 60% of what number? [A] 0.1 [B] 10 [C] 3.6 [D] 1000

Name _____

Algebra I Pre-test

30. Use the formula for simple interest, $I = prt$, to find the missing value.

$I = ?$, $p = \$820.00$, $r = 6\%$, $t = 4$ yr

[A] \$830.00

[B] \$19,680.00

[C] \$196.80

[D] \$83.00