

TEST NAME: **Math 1 Online 3 Nov 15**
TEST ID: **2680976**
GRADE: **09 - Ninth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **My Classroom**

Student: _____
 Class: _____
 Date: _____

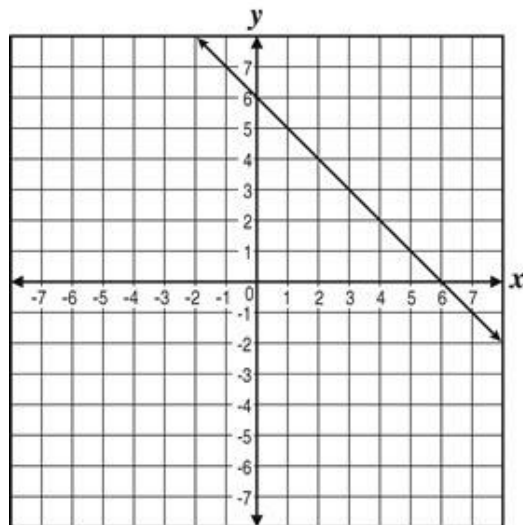
- If $f(x) = 3x + 2$ and $g(x) = 5x$, what is the value of $f(x) + g(x)$ when $x = 6$?

 - A. 50
 - B. 54
 - C. 92
 - D. 140

- Jay earns \$50 per week, plus \$5.25 for each hour worked in a given week. Fred's earnings are calculated using the formula $P = 6.25(x + 8)$, where x is the number of hours Matt worked. Which statement is true?

 - A. Jay earns \$2.75 per hour less than Fred.
 - B. Fred earns \$40 more than Jay for 40 hours of work.
 - C. Jay and Fred both earn the same for 40 hours of work in a week.
 - D. Fred earns \$42 less than Jay each week when both work 0 hours.

- Which equation is represented by the graph below?



- A. $-x + y = 6$
- B. $x + y = 6$
- C. $x + y = -6$
- D. $x - y = 6$

4. What is the equation of the line that passes through the points $(-6, -1)$ and $(0, 2)$?
- A. $y = \frac{1}{2}x - 2$
- B. $y = \frac{1}{2}x + 2$
- C. $y = 2x - 11$
- D. $y = 2x + 2$
5. A family is calculating the cost for one family member to enter college next year. Each semester hour of class will cost \$155, and there is a one-time enrollment fee of \$72. A scholarship gift of \$64 can be deducted from costs each semester. If n is the number of semesters, h is the number of semester hours taken, and c is the total cost, which equation can be used to calculate the total tuition costs?
- A. $c = 155h + 72 - 64n$
- B. $c = 155h - 72 - 64n$
- C. $c = 155h - 8n$
- D. $c = -155h - 72 - 64n$
6. The following table shows the prices for different sizes of storage units at a local storage warehouse.

Cost of Storage Units

Size (in square feet)	Monthly Cost
15	\$22.50
18	\$27.00
25	\$37.50
30	\$45.00

Storage units are priced the same amount of money per square foot. Following this pattern, what would be the cost of a 45-square-foot unit for one month?

- A. \$40.50
- B. \$52.50
- C. \$60.50
- D. \$67.50

7. What is the equation of the line that has an x -intercept of $(6, 0)$ and a y -intercept of $(0, 5)$?

- A. $y = \frac{6}{5}x + 5$
- B. $y = \frac{5}{6}x + 5$
- C. $y = -\frac{5}{6}x + 5$
- D. $y = -\frac{6}{5}x + 5$

8. These are the first five terms of an arithmetic sequence.

1, 5, 9, 13, 17, ...

What is the value of the 10th term in the sequence?

- A. 33
- B. 34
- C. 37
- D. 41

9. A straight line passes through points $(2, 12)$ and $(3, 8)$. What is the equation of the line?

- A. $y = -4x + 20$
- B. $y = -\frac{1}{4}x + 20$
- C. $y = 2x + 20$
- D. $y = \frac{3}{2}x + 20$

10. Which expression represents the total amount earned on \$2,500 invested in a savings account yielding 0.65% per year for 5 years?

- A. $2500(0.35)^5 - 2500$
- B. $2500(0.9935)^5 - 2500$
- C. $2500(1.0065)^5 - 2500$
- D. $2500(1.65)^5 - 2500$

11. The function $f(x) = 250(1.12)^x$ models the number of students at a school x years after it opened. By what rate is the number of students increasing each year?
- A. 0.12%
- B. 0.88%
- C. 12%
- D. 88%
12. The table below shows some of the values for the linear function f .

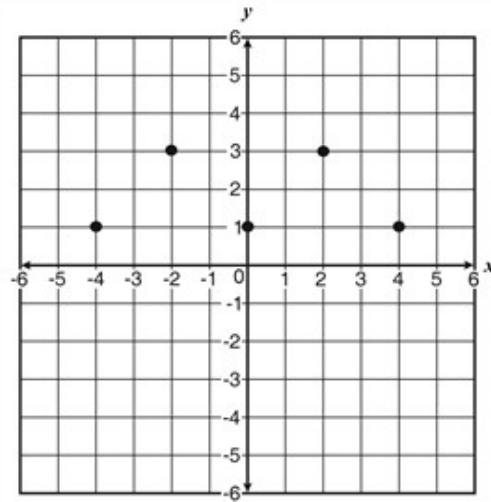
x	1	4	6	10
$f(x)$	6	3	9	21

Let g be the linear function defined by $g(x) = 4x + 5$. Which statement is true?

- A. The graph of f has a greater slope than the graph of g .
- B. The graph of g has a greater slope than the graph of f .
- C. The graph of f has the same slope as the graph of g .
- D. The slopes of the graphs of f and g are undefined.
13. Angela earns \$8 for every hour she works at her job. The amount of money Kelly earns at her job is modeled by the function $f(x) = 15t$, where t represents hours worked. Angela and Kelly both worked 38 hours last week. Which statement accurately describes the amount of money Angela and Kelly earned last week?
- A. Angela made \$38 more than Kelly.
- B. Kelly made \$266 more than Angela.
- C. Angela made \$304 more than Kelly.
- D. Kelly made \$570 more than Angela.
14. What is the range of the function $y = 2x + 1$ for the domain $2 \leq x \leq 5$?
- A. $\frac{1}{2} \leq y \leq 2$
- B. $1 \leq y \leq \frac{5}{2}$
- C. $4 \leq y \leq 10$
- D. $5 \leq y \leq 11$

15. Which set represents the range of the function $\{(-1, -3), (0, 1), (1, 5), (3, 9)\}$?
- A. $\{12\}$
 - B. $\{-1, 0, 1, 3\}$
 - C. $\{-3, 1, 5, 9\}$
 - D. $\{-3, -1, 0, 1, 3, 5, 9\}$
16. Which statement describes the domain and range of the exponential function $f(x) = -4^x$?
- A. The domain and range are both the set of all real numbers.
 - B. The domain is the set of all real numbers and the range is the set of all negative real numbers.
 - C. The domain is the set of all real numbers and the range is the set of all real numbers less than or equal to -4 .
 - D. The domain is the set of all real numbers greater than 0 and the range is the set of all real numbers less than 0.
17. Which statement is true about the domain of $y = 3(2^{-x})$?
- A. The domain is all real numbers.
 - B. The domain is all real numbers less than 0.
 - C. The domain is all real numbers greater than 0.
 - D. The domain is all real numbers greater than or equal to 2.

18. Which of the following describes the domain and range of the function in the graph?



- A. D: $-4 \leq x \leq 4$
R: $1 \leq x \leq 3$
- B. D: $\{-4, -2, 0, 2, 4\}$
R: $\{1, 3\}$
- C. D: $-\infty \leq x \leq \infty$
R: $-\infty \leq y \leq \infty$
- D. D: $\{\dots -3, -2, -1, 0, 1, 2, 3, \dots\}$
R: $\{1, 2, 3, \dots\}$