



Republic of the Philippines

Department of Education

**DIVISION OF QUEZON CITY SCHOOLS**

Quezon City, Metro Manila

**FIRST PERIODICAL TEST**

**MATHEMATICS IV**

SY 2012 – 2013

DIRECTIONS: Write the letter of your choice on your answer sheet. All answers must be in its simplest form.

1. Which of the following correspondence is a function?

i. One-to-one ii. One-to-many iii. Many-to-one

A. i only B. ii only C. ii and iii D. i and iii

1. In the equation y = 2x – 5, what does the constant 2 stands for?
2. slope B. y-intercept C. x-intercept D. root
3. What is the next ordered pair in the relation

A. B. C. D.

1. For what value of x will make satisfy the relation ?

A. 6 B. 10 C. 14 D. 18

1. Let , what is ?

A. – 6 B. 8 C. 48 D. 50

1. Given: , evaluate .

A. B. C. D.

1. Let . If , what is ?

A. B. C. D.

1. If and , find .

A. B. C. D.

1. Which of the following is NOT a function?
2. B. C. D.
3. What are the coordinates of the point two units to the right of the y-axis and five units below the x-axis?
4. (2,5) B. (2,-5) C. (5,2) D. (5,-2)
5. Express the equation 2x – y = 7 in slope-intercept form.
6. y = 2x + 7 B. y = 2x – 7 C. y = -2x +7 D. y = -2x – 7
7. If , which function is being described?
8. B. C. D.
9. Which of the following is NOT a graph of a linear function?
10. A horizontal line B. A diagonal line C. A vertical line D. none of these
11. What correspondence best describes a graph of a linear function with a slope equal to zero?
12. one-to-one B. one-to-many C. many-to-one D. many-to-many
13. Gasoline costs Php 49.10 per liter. Which equation represents the cost y of x liters of gasoline bought?
14. y = 49.10 + x B. y = 49.10 (x) C. y= 49.10 –x D. y = 49.10/x
15. At what point does the graph of y = 3x – 6 intersect the x-axis?
16. (2,0) B. (0,2) C. (-6,0) D. (0,-6)
17. A salesman receives a daily salary of Php 520.00 plus an additional allowance of Php 250 per week. How much will the salesman receive for a “4-day work” week?
18. Php 2080 B. Php 2140 C. Php 2330 D. Php 2540
19. What is the slope of the line passing through the points (3,-2) and (1,6)?

A. 4 B. – 4 C. ¼ D. -1/4

1. A line through the origin passing has a slope of -4. What is the equation of the line?
2. y = 4x B. y = -4x C. y = x + 4 D. y = x – 4
3. At an average rate, Ann can encode 40 words per minute. How many words can she encode in 1.5 hours?
4. 60 words B. 240 C. 3600 D. 6000
5. The ordinate and abscissa of a point are -3 and 4, respectively. In which quadrant is it located?
6. QI B. QII C. QIII D. QIV
7. If y = 4x – 3, and -2 < x < 3. Find the range of values of y.
8. -11 < y < 9 B. -10 < y < 9 C. -10 < y < 8 D. -11 < y < 8
9. If the slope of the line through (x,-9) and (0,-3) is 2, find x.
10. -1 B. -2 C. -3 D. -4
11. When 4x – 2y = 8 is written in slope-intercept form, what is the value of b?
12. 8 B. 4 C. -4 D. -8
13. When expressed in the form Ax + By + C = 0, the linear equation is equivalent to
14. 4x – 3y – 3= 0 B. 4x + 3y + 3 = 0 C. 4x – 3y + 3 = 0 D. 4x + 3y – 3 = 0
15. If the product of the slopes of lines is equal to -1, then the lines are
16. parallel B. perpendicular C. coinciding D. intersecting
17. Find the equation of the line parallel to 3x – y + 4 = 0 and passing through (1,2).
18. 3x – y = 0 B. 3x – y – 1 = 0 C. 3x – y – 2 = 0 D. 3x – y – 3 = 0
19. What general term is given to both abscissa and ordinate of a point?
20. domain B. range C. coordinates D. function values
21. The graph of a quadratic function is a
22. point B. line C. parabola D. circle
23. Which of the following statements is TRUE about the graph of the function f(x) = ax2 + bx + c when a < 0? A. The graph opens upward C. The graph opens to the right

B. The graph opens downward D. The graph opens to the left

1. The turning point of the graph of a quadratic function is called
2. vertex B. origin C. intercept D. coordinate
3. Which of the following is NOT a quadratic function?
4. f(x) = 2x2 -3x + 1 B. g(x) = 2(x+2)2 – 3 C. h(x) = 2/x2 D. y = 3x2
5. Given : f(x) = 2x2 + 4x + 5. Find f(-2).
6. 3 B. 5 C. 7 D. 9
7. What is the vertex of the graph of f(x) = 2x2 – 4x + 5?
8. (1,3) B. (-1,3) C. (-1,-3) D. (1,-3)
9. Which of the following is a quadratic function?

A. C.

B. D.

1. What is the axis of symmetry of the graph of f(x) = 2x2 – 4x + 5?
2. h = 1 B. k = 3 C. x = 1 D. y = 3
3. What is the range of f(x) = 2x2 – 4x + 5?
4. y ≤ 3 B. y ≥ 3 C. y < 3 D. y > 3
5. What value/s of x will satisfy the equation (x-3)(x-4) = 0?
6. 3 only B. 4 only C. 3 or 4 D. none of these

1. At what values of x will the graph of y = x2 – x – 20 intersect the x axis?
2. {-5,4} B. {-4,5} C. {-5,-4} D. {4,5}
3. The binomial (x-1) is a factor of 2x2 – 5x + 3. What is the other factor?
4. (2x-3) B. (2x+3) C. (3x-2) D. (3x+2)
5. The graph of a quadratic function may intersect the x-axis at how many points?
6. 0 B. 1 C. 2 D. All of these
7. What does the discriminant of a quadratic function tells us?
8. The nature of the roots C. The turning point of the graph
9. The direction of the opening of the graph D. The axis of symmetry

44. What is nature of the roots of .

A. imaginary B. real and equal C. irrational D. rational and unequal

45. If the quadratic function have real and equal zeros, then the value of k is

A. B. C. D.

46. Find the value of the discriminant of .

A. 22 B. 44 C. – 44 D. – 22

1. Given a quadratic function f(x) = ax2 + bx + c: When b2 – 4ac < 0 and a > 0, the roots are imaginary. Thus, the graph is
2. above the x – axis B. below the x – axis C. does not exist D. also imaginary
3. Find the length of the side of the square whose perimeter is numerically equal to its area.
4. 0 B. 4 C. 8 D. 16
5. If 16x2 + Qx + 1 is a perfect square trinomial, then the value of Q is
6. 8 B. -8 C. ±8 D. 0
7. A square garden has a side of (4x-1) meters. What is the area of the garden?
8. (4x2+8x – 1) meters2 B. (16x – 4) meters2 C. (16x2-8x+1) meters2 D. (16x2+1) meters2

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