Algebra I Common Assessment 2 Review (To be completed prior to Winter Break)

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the value of x in this equation?

5(x + 4) – 4x = 28

|  |  |  |  |
| --- | --- | --- | --- |
| A. x = 8 | B. x = 19 | C. x =  | D. x =  |

2. Graph the solution of the inequality on a number line.

4(x – 2) – 6x < x – 5

|  |  |  |  |
| --- | --- | --- | --- |
| A.  | B.  | C.  | D.  |

3. Write the formula for *h* given the equation 

4. Which equation matches the graph?

|  |  |
| --- | --- |
|  | A. B. C. D.  |

5. Which of the following is an equation of the line through (1, -4) and (-2, 5).

|  |  |  |  |
| --- | --- | --- | --- |
| A.  | B.  | C.  | D.  |

6. What is an equation in standard form of a line that has an x-intercept at 4 and a y-intercept at 12?

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| --- | --- | --- | --- |
| A. 3x – y = 12 | B. x – 3y = 12 | C. 3x + y = 12 | D. x + 3y = 12 |

7. Write the equation, in slope-intercept form, of the line that passes through (15, 4) and is perpendicular to the graph of .

|  |  |  |  |
| --- | --- | --- | --- |
| A.  | B.  | C.  | D.  |

8. Complete the sentence about the relation



The domain of the relation is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the range is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. Which of the following is an arithmetic sequence.

A. 4, 8, 16, 32 …

B. -1, 0, 2, 0, …

C. 12, 6, 0, -6, …

D. -1, 1, 5, 11,…

10. The table shows the age in years and the height in inches of six children. Write the linear function that can be used to determine the height of a child based on age.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age (years) | 4 | 5 | 6 | 7 | 8 | 9 |
| Height (inches) | 38 | 42 | 46 | 50 | 54 | 58 |

11. What is the solution of the system of equations?



|  |  |  |  |
| --- | --- | --- | --- |
| A. (-2, 3) | B. (-9, -10) | C. (3, -2)  | D. (10, -9) |

12. Five candy bars and four cookies cost $15. Two candy bars and 6 cookies cost $11.50. How much does one candy bar cost?

13. Choose the graph that matches the inequality 

|  |  |
| --- | --- |
| A. | B.  |
| C. | D. |

14. Which relation is not a function?

A. (1, 2), (-2, 4), (3, 4), (-5, 6)

B. (3, 4), (5, 2), (2, 5), (0, -1)

C. (3, 2), (0, -1), (4, 5), (3, 5)

D. (7, 1), (3, 4), (0, 12), (2, 4)

15. A child collects data on the height of a plant purchased at the local nursery. Where x is the number of days since the plant was purchased and y is the height.

|  |  |
| --- | --- |
|  | What does the y-intercept of the line represent?1. The height of the plant after 3 days
2. The number days the plant was at the nursery
3. The height of the plant when purchased
4. The number of plants available for purchase.
 |

16. Solve the system by graphing. Write the solution as an ordered pair.

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| --- | --- |
|  |  |

17. Which could be an equation of the trend line shown in the graph?

|  |  |
| --- | --- |
|  | 1. y = .7x + 4
2. y = -x + 5
3. y = -x + 6.2
4. y = -2x + 3
 |

18. Choose the correct words to make a true statement about the system of equation.

|  |  |
| --- | --- |
|  | Using substitution, the system has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. No solution
2. One solution
3. Infinitely many solutions
 |

19. Find the solution to the system of equations. Write each solution as an ordered pair.



20.

|  |  |
| --- | --- |
|  | 1.
2.
3.
4.
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