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**Name:** **ID:** 

**Email:** 

**Keystone Algebra 1 Review Module 4**

|  |
| --- |
| **Multiple Choice***Identify the choice that best completes the statement or answers the question.* |
|  | 1.  | The data in the table shows the cost of renting a bicycle by the hour, including a deposit.

|  |  |
| --- | --- |
| Hours (*h*) | Cost in dollars (*c*) |
| 2 | 15 |
| 5 | 30 |
| 8 | 45 |
|  |  |

If hours, *h*, were graphed on the horizontal axis and cost, *c*, were graphed on the vertical axis, what would the equation of a line be that fits the data?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc001-1.jpg | c. | mc001-3.jpg |
| b. | mc001-2.jpg | d. | mc001-4.jpg |

 |
|  | 2.  | Some ordered pairs for a linear function of *x* are given in the table below.

|  |  |
| --- | --- |
| *x* | *y* |
| 1 | 1 |
| 3 | 7 |
| 5 | 13 |
| 7 | 19 |
|  |  |

Which of the following equations was used to generate the table above?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc002-1.jpg | c. | mc002-3.jpg |
| b. | mc002-2.jpg | d. | mc002-4.jpg |

 |
|  | 3.  | The equation of the line *l* is mc003-1.jpg, and the equation of line *q* is mc003-2.jpg. Which statement about the two lines is true?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Lines *l* and *q* have the same *y*-intercept. | c. | Lines *l* and *q* have the same *x*-intercept. |
| b. | Lines *l* and *q* are parallel. | d. | Lines *l* and *q* are perpendicular. |

 |
|  | 4.  | Which equation represents a line that is parallel to mc004-1.jpg?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc004-2.jpg | c. | mc004-4.jpg |
| b. | mc004-3.jpg | d. | mc004-5.jpg |

 |
|  | 5.  | What is the solution to this system of equations?mc005-1.jpgmc005-2.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | (6, 2) | c. | No solution |
| b. | (1, -5) | d. | Infinitely many solutions |

 |
|  | 6.  | Which graph best represents the solution to this system of inequalities?mc006-1.jpgmc006-2.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc006-3.jpg | c. | mc006-5.jpg |
| b. | mc006-4.jpg | d. | mc006-6.jpg |

 |
|  | 7.  | Which ordered pair is the solution to the system of equations below?mc007-1.jpgmc007-2.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc007-3.jpg | c. | (-2, -3)  |
| b. | mc007-4.jpg | d. | (16, -3) |

 |
|  | 8.  | Marcy has a total of 100 dimes and quarters. If the total value of the coins is $14.05, how many quarters does she have?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 27 | c. | 56 |
| b. | 40 | d. | 73 |

 |
|  | 9.  | Which of the following best describes the graph of this system of equations?mc009-1.jpgmc009-2.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Two identical lines | c. | Two lines intersection in only one point |
| b. | Two parallel lines | d. | Two lines intersecting in only two points |

 |
|  | 10.  | mc010-1.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc010-2.jpg | c. | mc010-4.jpg |
| b. | mc010-3.jpg | d. | mc010-5.jpg |

 |
|  | 11.  | mc011-1.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc011-2.jpg | c. | mc011-4.jpg |
| b. | mc011-3.jpg | d. | mc011-5.jpg |

 |
|  | 12.  | The sum of two binomials is mc012-1.jpg. If one of the binomials is mc012-2.jpg, what is the other binomial?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc012-3.jpg | c. | mc012-5.jpg |
| b. | mc012-4.jpg | d. | mc012-6.jpg |

 |
|  | 13.  | Which of the following expressions is equal to mc013-1.jpg?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc013-2.jpg | c. | mc013-4.jpg |
| b. | mc013-3.jpg | d. | mc013-5.jpg |

 |
|  | 14.  | A volleyball court is shaped like a rectangle. It has a width of *x* meters and a length of 2*x* meters. Which of the expressions gives the area of the court in square meters?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 3*x* | c. | mc014-2.jpg |
| b. | mc014-1.jpg | d. | mc014-3.jpg |

 |
|  | 15.  | Which is the factored form of mc015-1.jpg?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc015-2.jpg | c. | mc015-4.jpg |
| b. | mc015-3.jpg | d. | mc015-5.jpg |

 |
|  | 16.  | Which is a factor of mc016-1.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc016-2.jpg | c. | mc016-4.jpg |
| b. | mc016-3.jpg | d. | mc016-5.jpg |

 |
|  | 17.  | Which of the following shows mc017-1.jpgfactored completely?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc017-2.jpg | c. | mc017-4.jpg |
| b. | mc017-3.jpg | d. | mc017-5.jpg |

 |
|  | 18.  | What is the complete factorization of mc018-1.jpg?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc018-2.jpg | c. | mc018-4.jpg |
| b. | mc018-3.jpg | d. | mc018-5.jpg |

 |
|  | 19.  | If mc019-1.jpgis added to *x*, the sum is 42. Which of the following could be the value of *x*?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | – 7 | c. | 14 |
| b. | – 6 | d. | 42 |

 |
|  | 20.  | Two airplanes left the same airport traveling in opposite directions. If one airplane averages 400 miles per hour and the other airplane averages 250 miles per hour, in how many hours will the distance between the two planes be 1625 miles?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 2.5 | c. | 5 |
| b. | 4 | d. | 10.8 |

 |
|  | 21.  | Lisa will make punch that is 25% fruit juice by adding pure fruit juice to a 2-liter mixture that is 10% pure fruit juice. How many liters of pure fruit juice does she need to add?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0.4 liters | c. | 2 liters |
| b. | 0.5 liters | d. | 8 liters |

 |
|  | 22.  | Which relation is a function?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc022-1.jpg | c. | mc022-3.jpg |
| b. | mc022-2.jpg | d. | mc022-4.jpg |

 |
|  | 23.  | For which equation graphed below are all the*y*-values negative?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc023-1.jpg | c. | mc023-3.jpg |
| b. | mc023-2.jpg | d. | mc023-4.jpg |

 |
|  | 24.  | What is the domain of the function shown on the graph below?mc024-1.jpg

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc024-2.jpg | c. | mc024-4.jpg |
| b. | mc024-3.jpg | d. | mc024-5.jpg |

 |
|  | 25.  | Which of the following graphs represents a relation that is not a function of *x*?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mc025-1.jpg | c. | mc025-3.jpg |
| b. | mc025-2.jpg | d. | mc025-4.jpg |

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| Start Over |

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