1. Solve 2x - 3 = y if the domain is {-2, -1, 0, 3, 5}
2. Graph 3x - y = 1
3. If g(x) = 2x2 - 3, find g(-4)
4. Find the 25th term of the arithmetic sequence with first term 7 and common difference -2.
5. Find the next 3 terms in the sequence 5, 6, 8, 11, …
6. A giraffe can travel 800 feet in 20 seconds. Write a direct variation equation for the distance traveled in any time.
7. Write an equation of the line whose slope is 2 and whose y-intercept is 9.
8. Write an equation of the line that passes through (-1, -7) and (1, 3)
9. Write in standard form.
10. Write the slope-intercept form of an equation of the line that passes through (-2, 0) and is parallel to the graph of y = -3x - 2.
11. If f(x) = x2 - 4x, find f(-3)
12. What is the slope of the line parallel to the line that passes through (-2, 1) and (3, 7)?
13. If 4x + 7y = -3 and 3x + 2y = 14, what is the value of x?
14. Solve 
15. Solve  if the domain is {-4, -1, 0, 1, 4}.
16. Write the slope-intercept form of an equation of the line that passes through (0, -4) and is parallel to the graph of 4x - y = 7
17. Solve and graph: 
18. Solve the system of equation: 3x - y = 1 and y = 3x + 1
19. Jim’s Brakes charges $25 for parts and $55 per hour to fix the brakes on a car. Myron’s Auto charges $40 for parts and $30 per hour to do the same job. What length of job in hours would have the same cost at both shops?
20. The sum of 2 numbers is 21 and their difference is 7. What are the numbers?
21. Solve the system of equations: 2x - 4y = 26 and 3x + 2y = 15
22. The table below shows the distance driven during 4 different trips and the duration of each trip. Draw a scatter plot and determine what relationship exists, if any, in the data. Write an equation for a line of fit for the data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Time (hours) | 1 | 2 | 2.5 | 4 |
| Distance (miles) | 50 | 85 | 120 | 180 |

1. Solve and graph: 4x - 5 < 7x + 10
2. Solve and graph: 2(5a - 4) - 3(6 + 2a) < 6
3. Solve and graph: 5 < 2t + 7< 11
4. Solve: 
5. Solve and graph: 
6. Solve: x + y = 2 and y = 2x - 1
7. Solve: -x - 5y = 7 and x + y = 1
8. Solve: 3x + y = -6 and 3x + 3y = 18
9. Solve: 3x + 3y = -6 and 7x + 4y = 1

Graph the solution to the following linear inequalities or systems of linear inequalities:

1. 3x + 2y > -2 33.) 4x + y < 2 and y > -2 34.) y > -x – 2 and y < -5x + 2

**Choose the best answer:**

1. Which equation is *not* equivalent to x - 7 = 12?

a.) x - 9 = 14 b.) x - 10 = 9 c.) x = 19 d.) x - 3 = 16

1. Sarah is ordering pizza and wrote an equation to help determine the cost of the pizza: C = 1.25T + 10. T is the number of toppings purchased and C is the total cost. What does the slope represent?

a.) The number of toppings b.) The cost of each topping

c.) The cost of a plain pizza d.) The total cost

1. Which equation is *not* equivalent to x - 7 = 12?

a.) x - 9 = 14 b.) x - 10 = 9 c.) x = 19 d.) x - 3 = 16

1. Which of the following points would be included in the solution to the system of inequalities? Point P(1,1), Point Q (3, -2), Point R (-1, -7)
   1. Point Q only
   2. Point R only
   3. Points P and Q
   4. Points Q and R
2. Find the value of y so that the line through (2, 3) and (5, y) has a slope of -2.

a.) -3 b.)  c.) 9 d.) 

1. Solve 

 a.)  b.)  c.)  d.) 

1. Write a compound inequality for the graph:

a.) x < -2 or x > 3 b.) x < -2 and x > 3

c.) -2 < x < 3 d.) -2 < x < 3

1. How many solutions exist for the systems of equations? 2x - 3y = 14

4x - 6y = 21

a.) No Solutions b.) One Solution c.) Two Solutions d.) Infinitely Many Solutions

1. When solving the following system, which expression could be substituted for y? 5x - 12y = 6

7x + y = 3

a.) 7x - 3 b.) -7x + 3 c.) 5x - 6 d.) -5x + 6

1. If 4x + 5y = 6 and 7x + 5y = 3, what is the value of y?

a.) -1 b.) 2 c.) 1 d.) -3

1. Which ordered pair satisfies the system of inequalities? x + 2y > 8

3x - 2y < 10

a.) (0, 4) b.) (3, 3) c.) (4, -2) d.) (5, 1)