W3 Assignment

1. Find the slope-intercept form of the equation of the line that passes through the given point and has the indicated slope *m.* Sketch the line.

(0,0), m = 3

2. Find the slope-intercept form of the equation of the line that passes through the given point and has the indicated slope *m*. Sketch the line.

(4, 10/3), m = 0

3. Determine whether the lines are parallel, perpendicular, or neither.

L1: y = 7/8 x – 7

L2: y = -8/7 x – 8

4. Find the slope-intercept form of the equation of the line passing through the points. Sketch the line.

(4,-3), (-4,4)

5. Which of the following equations does not represents *y* as a function of *x?*










6. Evaluate the function g(y) = 10 – 4y at g(s + 11).

7. Evaluate the function at f(-2).



8. Does the table describe a function?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input value | 1 | 3 | 4 | 3 | 1 |
| Output value | –12 | –7 | 0 | 7 | 12 |

9. Does the table describe a function?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input value | 10 | 30 | 10 | 20 | 40 |
| Output value | 2001 | 2002 | 2003 | 2004 | 2005 |
|  |  |  |  |  |  |

10. Evaluate the function q(x) = 1 / (x2 – 5) at q(3).

11. Find the difference quotient and simplify your answer.

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12. Find the real values of x such that f(x) = 0.

f(x) = x2 – 8x + 65

13. Find the real values of x such that f(x) = 0.

f(x) = 81x2 – 49

14. Find the domain of the function.



15. Find the real values of x such that f(x) = 0.

f(x) = x3 – x2 – 9x + 9

16. Find the average rate of change of the function from x1 = 1 to x2 = 5.

f(x) = x2 – 8x + 8

17. Find the zeros of the function algebraically.



18. Find the zeros of the function algebraically.



19. Find (*f* + *g*)(*x*).





20. Find (f – g)(x).





21. Evaluate the indicated function for 

(f – g)(t + 2)

22. Find (f/g)(x). What is the domain of f/g?





23. Find (f – g)(x).





24. Find g ◦ f





25. Find g ◦ f



