***MPM1D – Review for Test #4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_***

***ANALYTIC GEOMETRY***

1. Determine equation of the following lines in the form 

|  |  |
| --- | --- |
| 1.
 | 1.
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| 1.
 | 1.
 |
| 1. has a slope of  passes through (-4, -3)
 | 1. has a slope of -2, passes through (-2, 5)
 |

2. Find the slope between the following pairs of points, and an equation that passes through them. Do this on a separate piece of paper!!! You can use: 

a) (2, 5) and (4, 9) b) (0, –5) and (3, –8) c) (-3, 8) and (3, 0)

3. Give the equation of a line that….

1. has a slope of  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. has a y-intercept of 3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. is increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. is a horizontal line \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. is steeper than *y* = –1 + 4*x* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. is less steep than  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. goes in the opposite direction to , but has the same
steepness \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. is steeper than  but less steep than  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. crosses the y axis between and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. is not steep, is decreasing, and has a small
y-intercept \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. is really steep, and goes in the opposite direction of *y* = 5 – 2*x* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. is a vertical line that passes through the point (2, 3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. is steeper than and passes through the origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. is perpendicular to  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. is parallel to , with the same y-intercept as y = 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Draw a graph of the following lines. Label them.

a) 

b) 

c) 

d) 

e) 



5. Line 1 passes through the points (6, 19) and (18, 11). Line 2 is perpendicular to Line 1, and has a y-intercept of –5. Does line 2 pass through the point (10, 10)? Show your work.

ANSWERS

|  |  |
| --- | --- |
| 1. a) $y=\frac{1}{3}x-2$b) $y=-x+3$c) $x=-2$d) $y=4x+8$e) $y=\frac{3}{4}x$f) $y=-2x+1$
 | 1. a) $y=2x+1$b) $y=-x-5$c) $y=-\frac{4}{3}x+4$
 |

1. Various answers are acceptable
2. 
3. Yes it does – the equation is $y=\frac{3}{2}x-5$