Review for Exam 1
MA 102
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1) Find the slope m of the line containing the points (1,-3), (-1,-4).

2) Write in slope-intercept form the equation of the line passing through (-1,6) with slope 3.

3) Graph and write in interval notation the solution set $\{x | 7 \geq x > 1\}$

4) Graph the line with slope -3 and y-intercept (0,2).

5) Determine if Line 1 (passing through (1,10), (4,9)) is parallel, perpendicular, or neither to Line 2 (passing through (0,0), (3,9)).

6) Write in standard form the equation of the line passing through (-3,5) and (1,-3). Do not use fractions.

7) Write in slope-intercept form the equation of the line passing through (0,-1) with slope -5.

8) If a final exam counts as two regular exams and a student has made an 89, 85, and 98 on her three regular exams, calculate the minimum grade she must make on the final to have at least a 90 in the class. Express this as a solution set involving an inequality, and explain the meaning of this inequality.

9) Solve the inequality and graph its solution set. Then write the solution set in interval notation: $|3x - 3| < 18$.

10) Write in standard form the equation of the vertical line passing through (-2,-1).

11) Find the pitch of a roof 7 feet high and 21 feet long (from the center to the edge).

12) Write in slope-intercept form the equation of the line passing through (-1,8) and perpendicular to 1-3y=x.

13) Solve: $|4x + 2| - 2 = 8$.

14) Is the line given by $y - 2x = 2$ parallel, perpendicular, or neither to the line given by $2y + x = 2$?

15) Solve $|9g - 2| + 10 = 8$.

16) Graph $y = 1$.

17) Find the slope of a line parallel to $8y + 16x = 32$.

18) Find the solution set to the inequality $|x| + 5 > 7$ and write it in interval notation. Graph the solution set.

19) Find the slope of the line containing (0,8), (-1,2).

20) Write in slope-intercept form the equation of the line parallel to $5y + 4x = 10$ and passing through (-1,-2).