

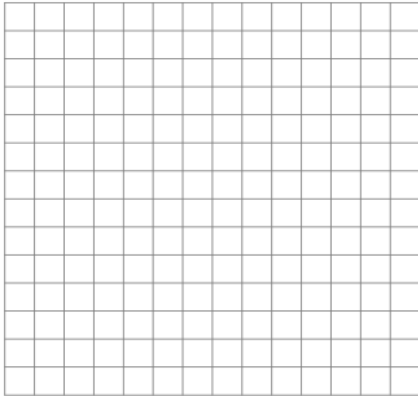
MATH 5071 - Problem Set 11

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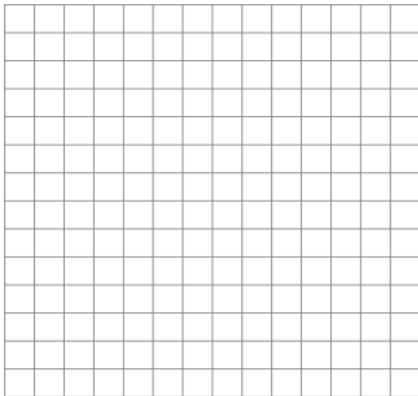
Due: 2014 July 30

1) For the following absolute value functions, find: a. the coordinates of the vertex, b. the equation for the line of symmetry, c. the x-intercepts, d. the y-intercepts, e. whether the vertex is a max. or min., f. the domain, g. the range, and then h. graph the function.

i) $y = -|x + 4| - 3$



ii) $y = 2|x - 2| + 4$



2) Solve the following inequalities. Report the solution set on a number line and in interval notation.

i) $|x - 20| > 5$

ii) $|x - 3| \leq 4$

iii) $|3 + x| - 4 < 0$

iv) $|x + 4| \geq -3$

v) $|x + 1| < -6$