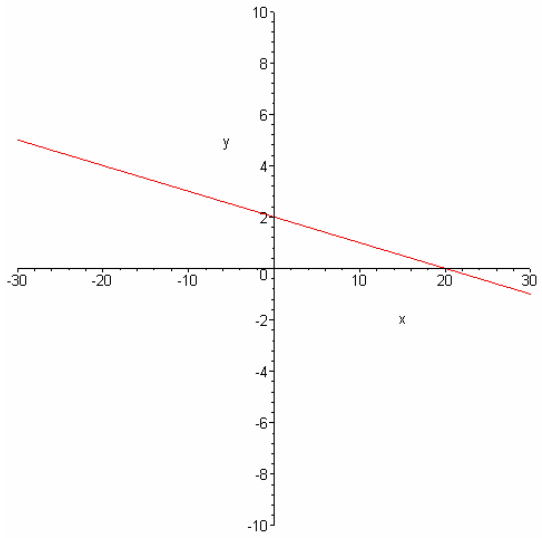
Name:

# QUIZ – MATH GRADE 10

1. (10%) A line with m = _____ is more steep than a line with m = 1.1 and less steep than m = 1.2

2. (15%) Given the graph, write the expression of the function:



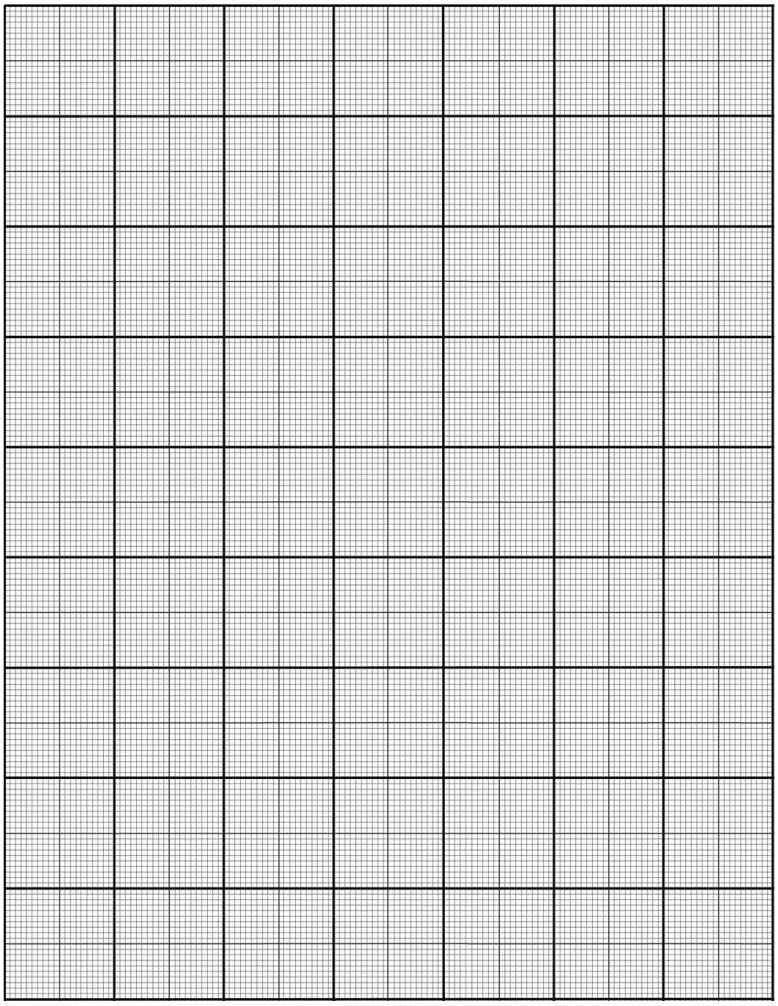

3. (40%) The number of cars in a parking lot with a 1500 spots can be approximated by a linear function. The parking opens at 6am (it is empty during the night) and cars flow in until it is full at 10am.

   a. (15%) Find a linear function to describe the number of cars in the parking as a function of the time t (t should be in the interval [6, 10]). Indicate its domain and range.

   b. (5%) Use your model to predict the number of cars at 8:30

   c. (10%) What time should the parking close in case 200 free spots are needed for maintenance purposes?

d. (10%) Sketch the function, indicate all info on graph:



4. (35%) 2 Students are trying to memorize a list of 50 words. Student 1 is using the method “supermemory” that allows to memorize 10 words in the first minute and 4 words with every minute that passes, while Student 2 is using the method “impossibletoforget” that allows to memorize 16 words in the first minute and 2 words with every minute that passes.

    a. (10%) Find a linear function to describe the number of words memorized using each one of the methods. Indicate its domain and range.

    b. (10%) Sketch the functions, find and indicate all the <u>important points</u> on graph:

    c. (15%) Discuss which model is better in which case.