Lesson Plan

Name: Alexis Richardson
Grade Level(s)/Subject Taught: 8th
Objective: Students will learn how to graph y=mx+b equations. EQ: How do you graph y = mx+b equations? Text Alignment   Connected Math
Class Structure: 75 Minutes
Number of Days: 1

1. Mathematical Concept (Key Idea) that modeling will be used to teach:

Create graphs to represent the equation of a straight line. New York State Math Standards 8.R.1 8.A.3 8.A.4

and/or
1.b Science Concept (Key Idea) that modeling will be used to teach

Materials:

Computer with Geometer's Sketchpad worksheet Rubric Smart board Projector Pencils Rulers Graph Paper

Description/Vision on way(s) you might teach the planned lesson.
Prompts:
1. How will you assess the prior knowledge of the student?
2. How will you begin the lesson?
3. What are the teacher and students doing every 5-10 minutes? (Teacher Actions, and Student Actions)
4. How will you assess the learning for the lesson?

Prior Knowledge:
Students should know what the m and b stand for in the equation y = mx + b.

To launch lesson, discuss slope and y-intercept with students using the overhead and a graph of 2x + 4.

Hand out worksheet and two sheets of graph paper per student.

Teacher manually graphs the equation Y=5x+5 with help from the class. Students will follow along by graphing this equation on their graph paper.

Teacher advises how to plot the same graph using GSP.
First, open up **GSP**.
Then go to the **Graph** tab.
Then, select **define coordinate system**. Now the screen should show a graph.
Once you see the graph you are ready to graph your equations or functions.
Make sure the graph is on square grid form. To check, go to Graph tab and select **grid form** and verify if square grid is selected.
To graph functions, go to **Graph**, then select **plot new function**. Type in the function you want to plot.
Click **ok**. This graph should look like the following:
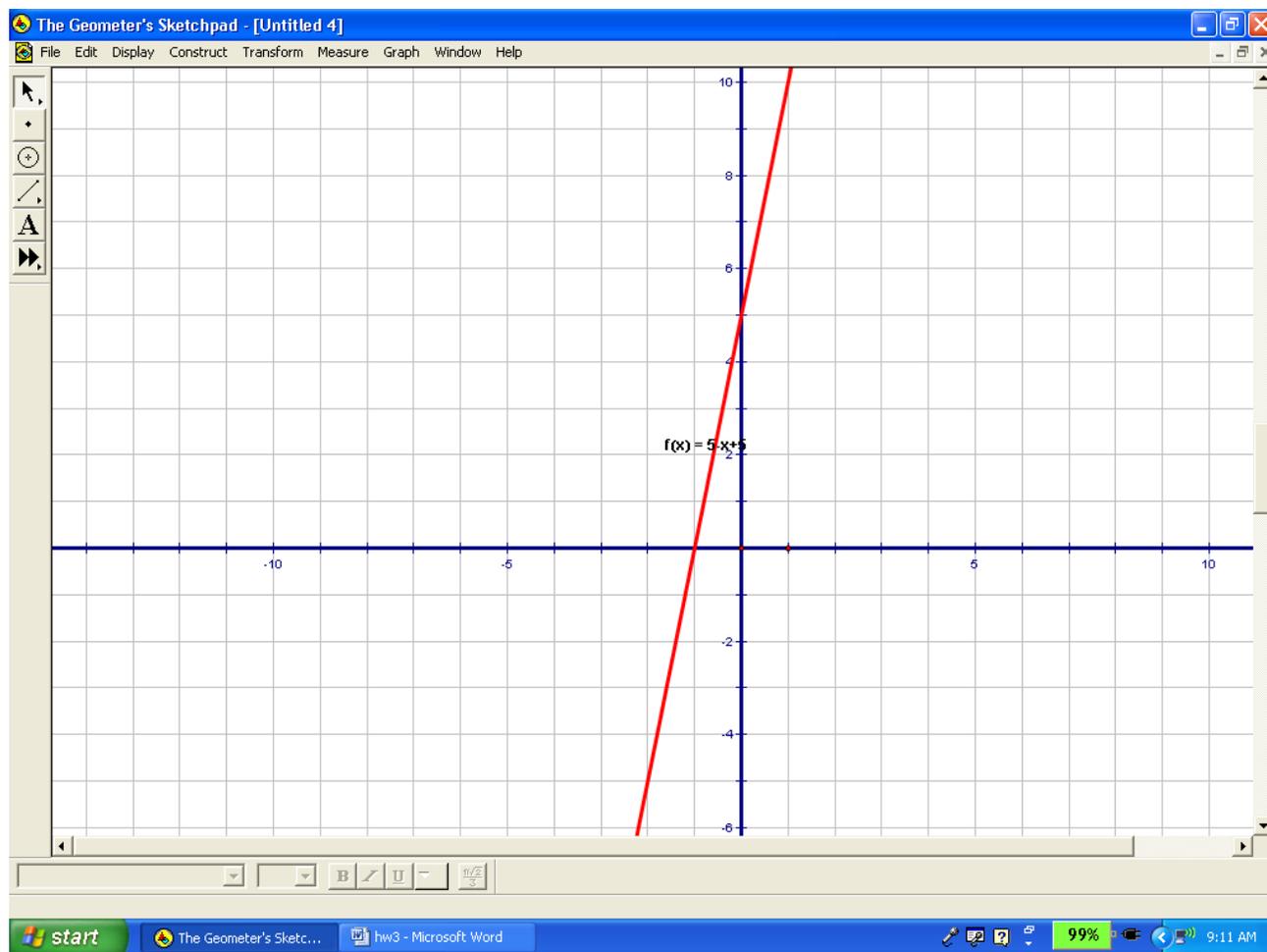
Students complete their worksheets. Teacher circulates during lesson to assist students and assess whether students are graphing correctly. Students work in groups of two to finish the worksheets manually and then checking their work using GSP.

When students have completed their worksheets, teacher will call on students to come up individually to to help the teacher graph the six functions from their worksheets.
Students go back to their desks and check their answers with what they just graphed in GSP which will be projected on the SmartBoard. That graph should look similar to the following graph.
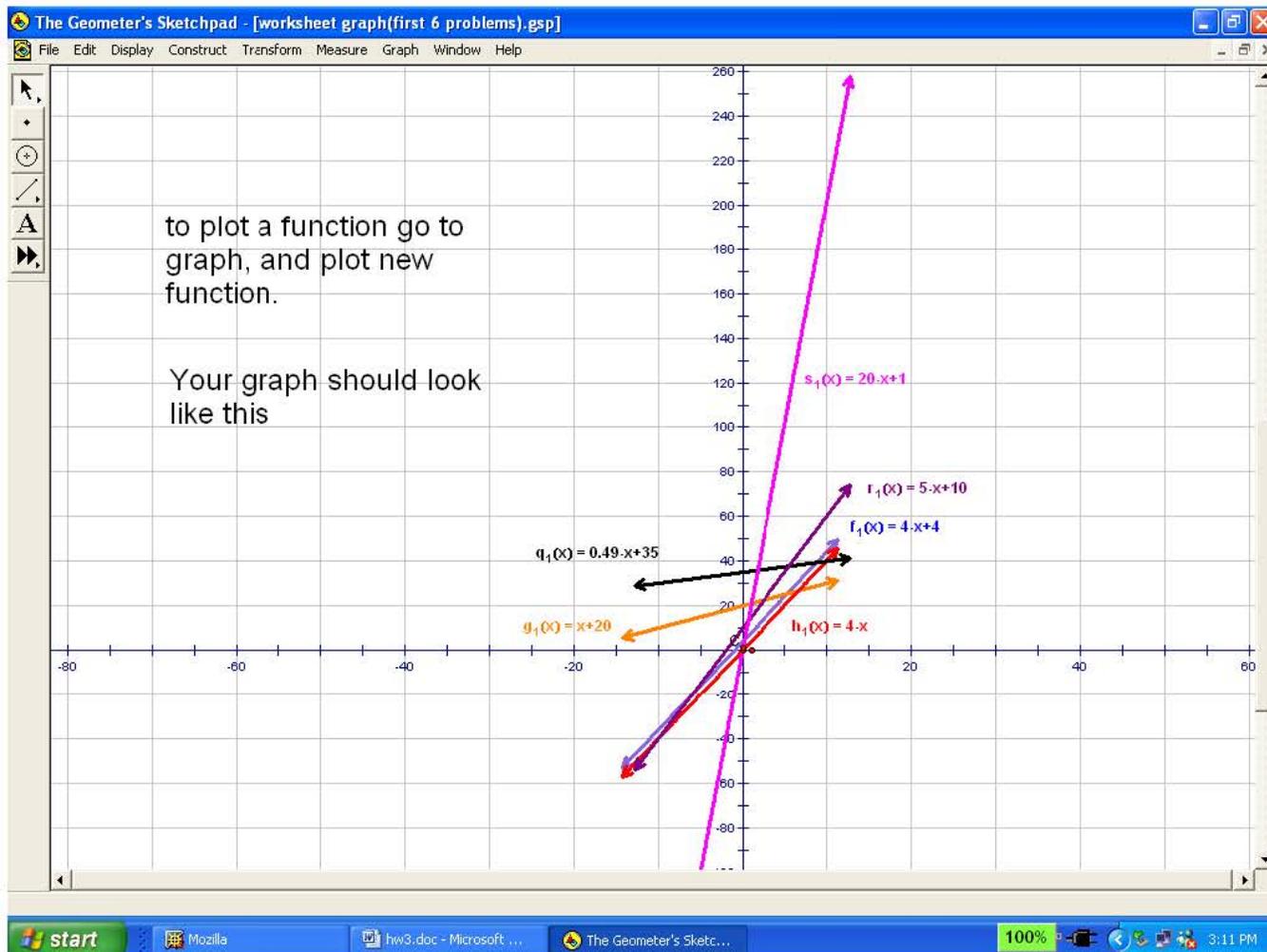
Y=mx+b

Directions: Graph the functions. Check you answer with Geometer's Sketchpad

1.) y = 20x + 1   2.) y = 5x + 10

3.) y = .49x + 35   4.) y = 4x

Directions: Make a table, then graph the points.

5.) y = x + 20   6.) y = 4x + 4

x	y

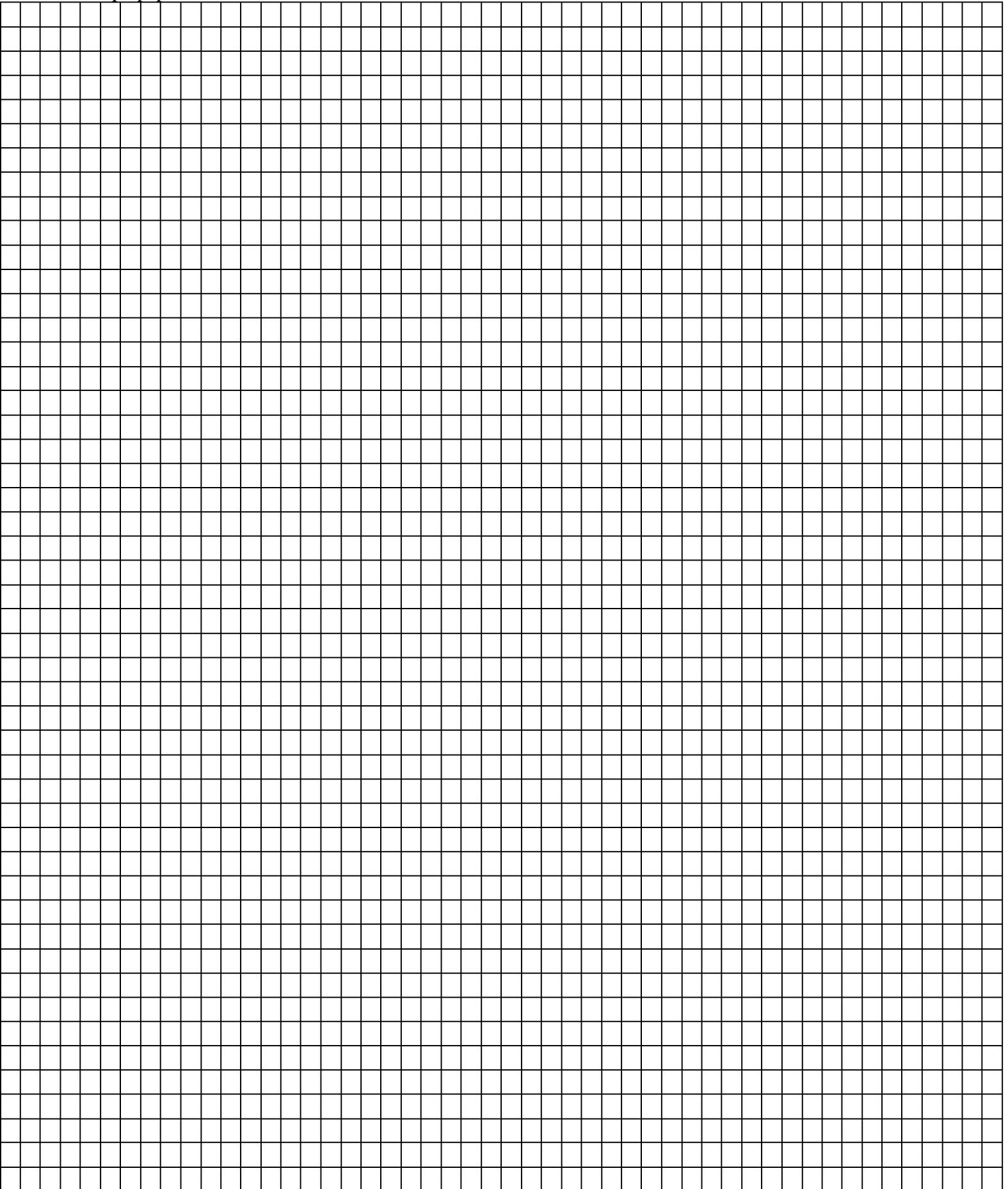| x	y

Make up two (2) functions for the class to do. Make sure you know what the graph should look like.

7.) _____

8.) _____

Graph paper

Grading Rubric

	10 points	5 points	0 points
Class Participation	Awake and asking or answering questions	Awake and paying attention	If asleep or not paying attention
Group Cooperation	Working well with group	Working with group but also walking around	Not working what so ever
Graphing the functions	For each correct graph total of 10 points each for 8 graphs	For each partially correct graph	If totally wrong

Total Score _____