Understand how to compare two linear functions (i.e. rate of change, etc.) with the same representation (algebraically, graphically, numerically in tables, or by verbal description)

Consider the following verbal description of a linear function: In one month a cell phone company charges $50 and $.05 for each text message.Show the representation of this function as an equation where y is the total cost for one month for x number of text messages, a table showing the cost for a certain number of messages, and a graph.

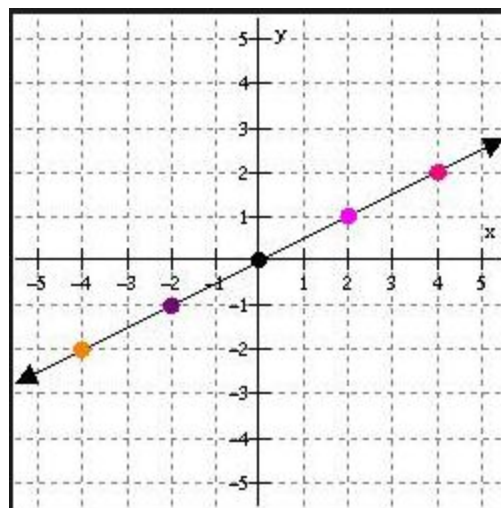1) Write an equation to represent this situation.

2) Create a table showing the cost for 0-500 in increments of 50 text messages.

3) Create a graph to show the representation.

You are trying to determine which electric company is a better deal. Hannah's electricity company charges her $0.11 per kWh (kilowatt-hour) of electricity, plus a basic connection charge of $15.00 per month. Melanie's company charges according to the table below.

# of kWh	50	100	150	200	250	300	350
Cost	20	30	40	50	60	70	80

Jack's Company charges according to the graph below:

Andrea's company charges according to this: (10, 15)(20, 22.50)

Alexander's company using the following equation: $y = 5 + 1.25x$

1) Write the equation to represent how Hannah's electric company charges.

2) Determine how much you pay per mile for each rental company.

       Hannah's Electric Rate:

       Melanie's Electric Rate:

       Jack's Electric Rate:

       Andrea's Electric Rate:

       Alexander's Electric Rate:

3) Determine which electric company is a better deal if you use 300 kWh of electricity a month.