Name_____ **Linear Regression**

Choose one of the data sets. (See back of worksheet.)

1. Neatly graph the data. (Use only the last two numbers of the year.) Tape your graph below or on the back of this sheet. Be sure to accurately and evenly number your axes, label the axes, and title the graph. You do not need to start your graph at (0,0).

2. Draw a line of best fit. Use a straightedge!

3. Find and circle two lattice points on the line. Record them here: (,) and (,)

4. Use the two points to find the slope of the line. **Explain the meaning of the slope.**

5. Use the slope and one of the lattice points to find b, the y-intercept. Show work. **Explain the meaning of the y-intercept.**

6. Use the equation to predict the value in the following years. **Show work.**

a. 2015 b. 2020 c. 2040

Green Bay Packers home games – Average ticket price

Year-Cost
2006-$58.39
2007-$63.39
2008-$63.39
2009-$63.39
2010-$72.36
2011-$75.65
2012-$78.84
2013-$82.61
2014-$85.61

Average cost of movie ticket

Year-Cost
2000-$5.40
2002-$5.80
2005-$6.40
2006-$6.60
2007-$6.90
2008-$7.20
2009-$7.50
2010-$7.90
2011-$8.00

Average college room and board, tuition and fees

Year	Room and board	Tuition and fees
1978	$1,521	$1,397
1983	$2,404	$2,344
1988	$3,253	$3,472
1993	$4,168	$5,119
1998	$5,166	$6,723
2003	$6,476	$9,029
2008	$8,361	$12,075
2009	$8,722	$12,467

Calculate total cost first !

iPhone sales on opening weekend – Global data

Year	iPhone	Units sold
2008	3G	1,000,000
2009	3GS	1,000,000
2010	4	1,700,000
2011	4S	4,000,000
2012	5	5,000,000
2013	5C, 5S	9,000,000
2014	6	