Name_____Period_____Super Bowl Math

Solve all problems and show all work. Circle final answers.

#1 In Super Bowl XXI, Phil Simms completed 22 out of 25 passes. He set the record for the highest completion percentage. What percent of passes did he complete?

#2 Tickets for Super Bowl XLV (2011) had a face value of $900. Some people paid $11000 for a ticket. What was the percent increase for the ticket?

recall: percent change = $\frac{\text{difference of numbers}}{\text{original number}} \bullet 100$

#3 The cost of a thirty second Super Bowl ad in 1970 was $42000. In 2013 the cost of a thirty second Super Bowl ad was $4 million. What is the percent increase?

#4 In 1967 (Super Bowl I) each player on the winning team received $15,000. In 2012, each player on the winning team received $88,000. What was the percent increase?

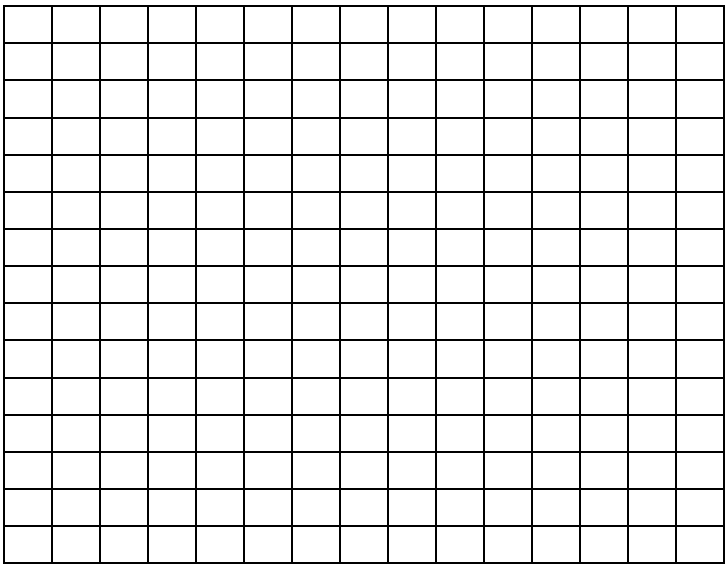
#5 In 1967, each player on the losing team received $7500. In 2012 each player on the losing team received $44,000. What was the percent increase?

#6 Below is a chart for the cost of a thirty second commercial during the game.

YEAR	COST (in millions of dollars)
2000	2.1
2001	2.05
2002	109
2003	2.1
2004	2.25
2005	2.4
2006	2.5
2007	2.6
2008	2.7
2009	3
2010	2.65
2011	3
2012	3.5
2013	4

A. Let x represent the number of years since 2000 and let y represent the cost of a commercial. Use an appropriate viewing window on your graphing calculator and make a scatter plot of the data. What window values did you use?

B. On the grid below, graph your scatter plot. Be sure to label the axes.



C. The scatter plot is somewhat linear. Use your graphing calculator to find the best fit line.

What is your equation? _____

Type this equation into your calculator and graph it on your scatter plot to confirm that it is indeed a good fit.

D. What is the real world meaning of the y-intercept for your equation?

Do you think this is possible? Explain.

E. What is the real world meaning of the slope for your equation?

Do you think this is possible? Explain.

F. Use your equation to predict the cost of a commercial in 2020.

#7 The cost of a 30-second commercial during the game in 1973 was 0.10 million dollars. The cost for a 30-second commercial during the game in 2003 was 1.9 million dollars.

A. Let a coordinate point be represented by (year, dollars in millions). What are the two ordered pairs described above?

B. Find the slope of the line which goes through your coordinate points.

C. Use $y = mx + b$ to find the y-intercept. What is it?

D. Write the linear equation to model this problem.

E. Using this equation, what is the projected cost of a commercial in 2015? 2020?