Computer Printout Practice

Name _____   Date _____

1. Nutritionists claim that the more fat grams a burger has, the more calories. Below is a regression printout of various types of burgers from some fast food restaurants.

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Predictor          Coef         StDev           T          P
Constant         210.95         50.10        4.21      0.008
Fat(g)           11.056         1.430        7.73      0.001

S = 27.33        R-Sq = 92.3%      R-Sq(adj) = 90.7%
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a) Define the explanatory and response variables.

b) Write the equation of the least-squares regression line.

c) What is the value of r?

d) Interpret r.

e) What is the predicted calories for a burger that has 33 fat grams?

f) What is the residual for a burger that has 31 fat grams and 580 calories?

g) Does the regression line under- or over-predict the calories for the burger in (f)? Explain.

2. Data was recorded on a sample of homes for sale. Variables listed are their Area (in sq. feet) and their Listing Price.
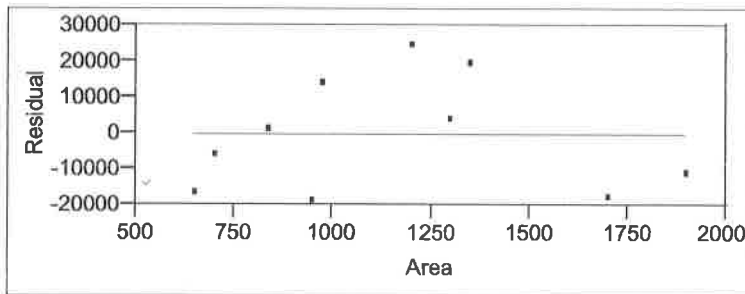
Bivariate Fit of Price By Area
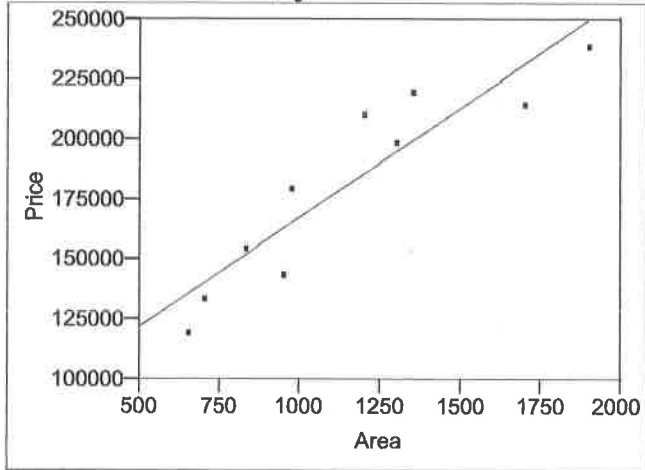
Summary of Fit

RSquare	0.850892
RSquare Adj	0.832253
Root Mean Square Error	16838.28
Mean of Response	182101.3
Observations (or Sum Wgts)	10

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	76469.048	16515.73	4.63	0.0017
Area	91.361574	13.52174	6.76	0.0001

1. What is the regression equation?

2. Find the value of the correlation and interpret. Find the value of r^2 and interpret.

3. Discuss what the residual plot tells us.