

## Low Fat and Low Carb

Over the last few years, many people have gone on “low-carb” diets while others have tried “low-fat” diets. Here are data on 9 different types of hamburgers at McDonalds.

Type	Carbs (g)	Fat (g)
Hamburger	31	9
Cheeseburger	33	12
Double Cheeseburger	34	23
Quarter Pounder	37	19
Quarter Pounder w/ cheese	40	26
Double Quarter Pounder w/ cheese	40	42
Big Mac	45	29
Big n' Tasty	37	24
Big n' Tasty w/ cheese	38	28

*State:* What is the relationship between the amount of carbs and the amount of fat in McDonald's hamburgers?

1. **Explanatory variable:**

**Response variable:**

2. **Scatterplot:**



3. **Correlation Coefficient:**

4. **Least Squares Regression Line (LSRL)**

a) by formula:

b) by calculator:

**5. Interpretation of y-intercept:**

**6. Interpretation of slope:**

**7. Coefficient of Determination ( $R^2$ ):**

**8. Prediction:**

**9. Residuals:**

**10. Residual Plot:**



**11. Influential Point:**

**12. Outlier:**