

Yang, Kun 301178299

Assignment 1 - Part 1
part of the raw data

Obs	name	manufacturer	type	calories	protein	fat	sodium	fiber	carbo
1	100%_Bran	N	C	60	4	1	130	10.00	5.00
2	100%_Natural_Bran	Q	C	110	3	5	15	2.00	8.00
3	All-Bran	K	C	80	4	1	260	9.00	7.00
4	All-Bran_with_Extra_Fiber	K	C	50	4	0	140	14.00	8.00
5	Almond_Delight	R	C	110	2	2	200	1.00	14.00
6	Apple_Cinnamon_Cheerios	G	C	110	2	2	180	1.50	10.50
7	Apple_Jacks	K	C	110	2	0	125	1.00	11.00
8	Basic_4	G	C	140	3	2	210	2.00	18.00
9	Bran_Chex	R	C	90	2	1	200	4.00	15.00
10	Bran_Flakes	P	C	90	3	0	210	5.00	13.00

Obs	sugars	shelf	potassium	vitamins	weight	cups_per_serving
1	6	3	280	25	1.00	0.33
2	8	3	135	0	1.00	-1.00
3	5	3	320	25	1.00	0.33
4	0	3	330	25	1.00	0.50
5	8	3	-1	25	1.00	0.75
6	10	1	70	25	1.00	0.75
7	14	2	30	25	1.00	1.00
8	8	3	100	25	1.33	0.75
9	6	1	125	25	1.00	0.67
10	5	3	190	25	1.00	0.67

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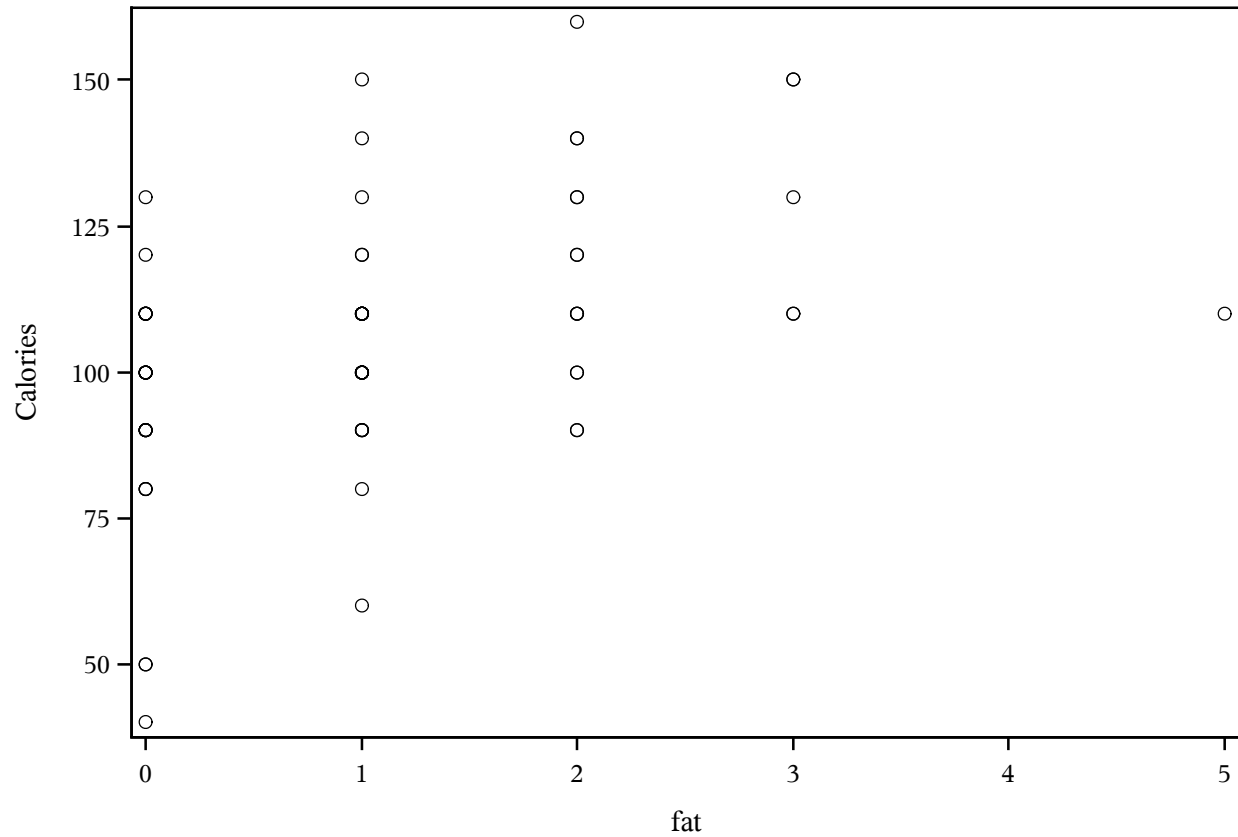
Assignment 1 - Part 1
part of the raw data after replacing -1 by missing values

Obs	name	manufacturer	type	calories	protein	fat	sodium	fiber	carbo
1	100%_Bran	N	C	60	4	1	130	10.00	5.00
2	100%_Natural_Bran	Q	C	110	3	5	15	2.00	8.00
3	All-Bran	K	C	80	4	1	260	9.00	7.00
4	All-Bran_with_Extra_Fiber	K	C	50	4	0	140	14.00	8.00
5	Almond_Delight	R	C	110	2	2	200	1.00	14.00
6	Apple_Cinnamon_Cheerios	G	C	110	2	2	180	1.50	10.50
7	Apple_Jacks	K	C	110	2	0	125	1.00	11.00
8	Basic_4	G	C	140	3	2	210	2.00	18.00
9	Bran_Chex	R	C	90	2	1	200	4.00	15.00
10	Bran_Flakes	P	C	90	3	0	210	5.00	13.00

Obs	sugars	shelf	potassium	vitamins	weight	cups_per_serving
1	6	3	280	25	1.00	0.33
2	8	3	135	0	1.00	.
3	5	3	320	25	1.00	0.33
4	0	3	330	25	1.00	0.50
5	8	3	.	25	1.00	0.75
6	10	1	70	25	1.00	0.75
7	14	2	30	25	1.00	1.00
8	8	3	100	25	1.33	0.75
9	6	1	125	25	1.00	0.67
10	5	3	190	25	1.00	0.67

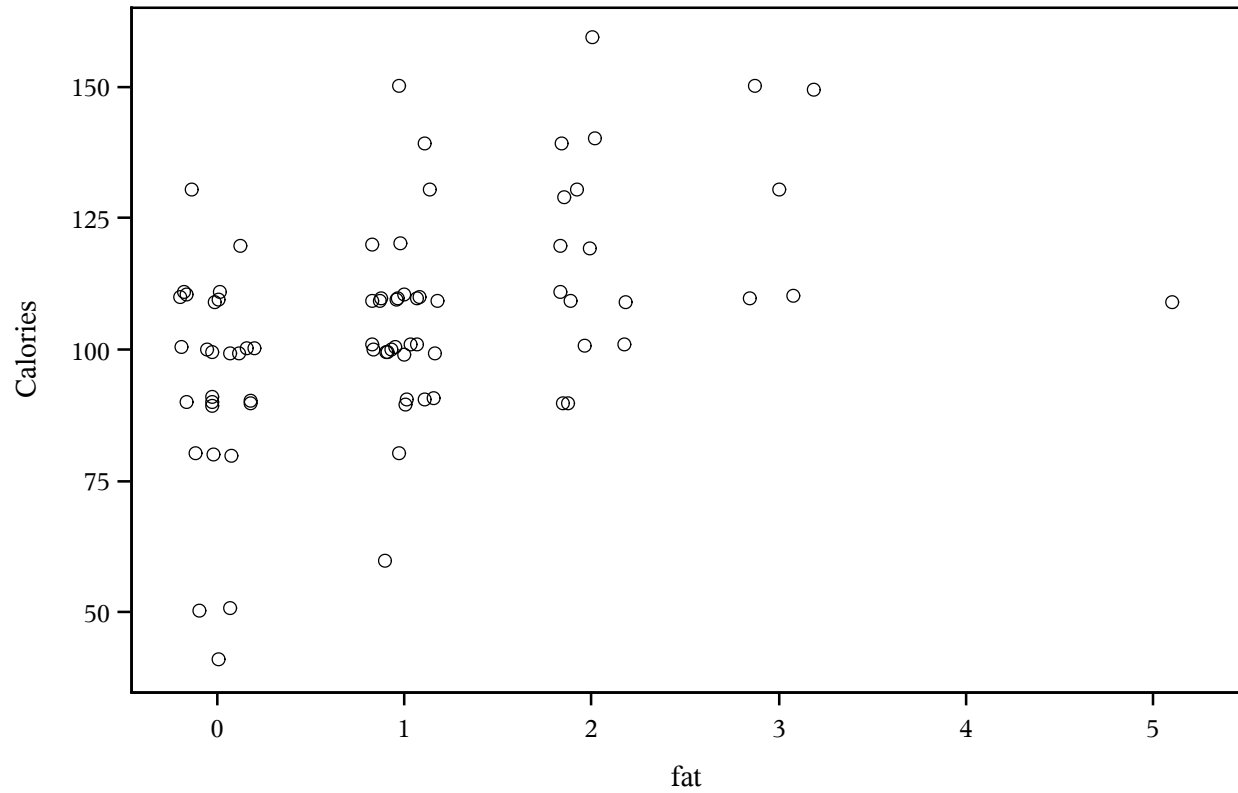
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Assignment 1 - Part 1
Scatter plot of calories vs grams of fat



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Assignment 1 - Part 1
Scatter plot of calories vs grams of fat



Jittering used to display points hidden by overplotting

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Assignment 1 - Part 1
regresssion of calories vs. grams of fat

The REG Procedure
Model: MODEL1
Dependent Variable: calories Calories

Number of Observations Read	77
Number of Observations Used	77

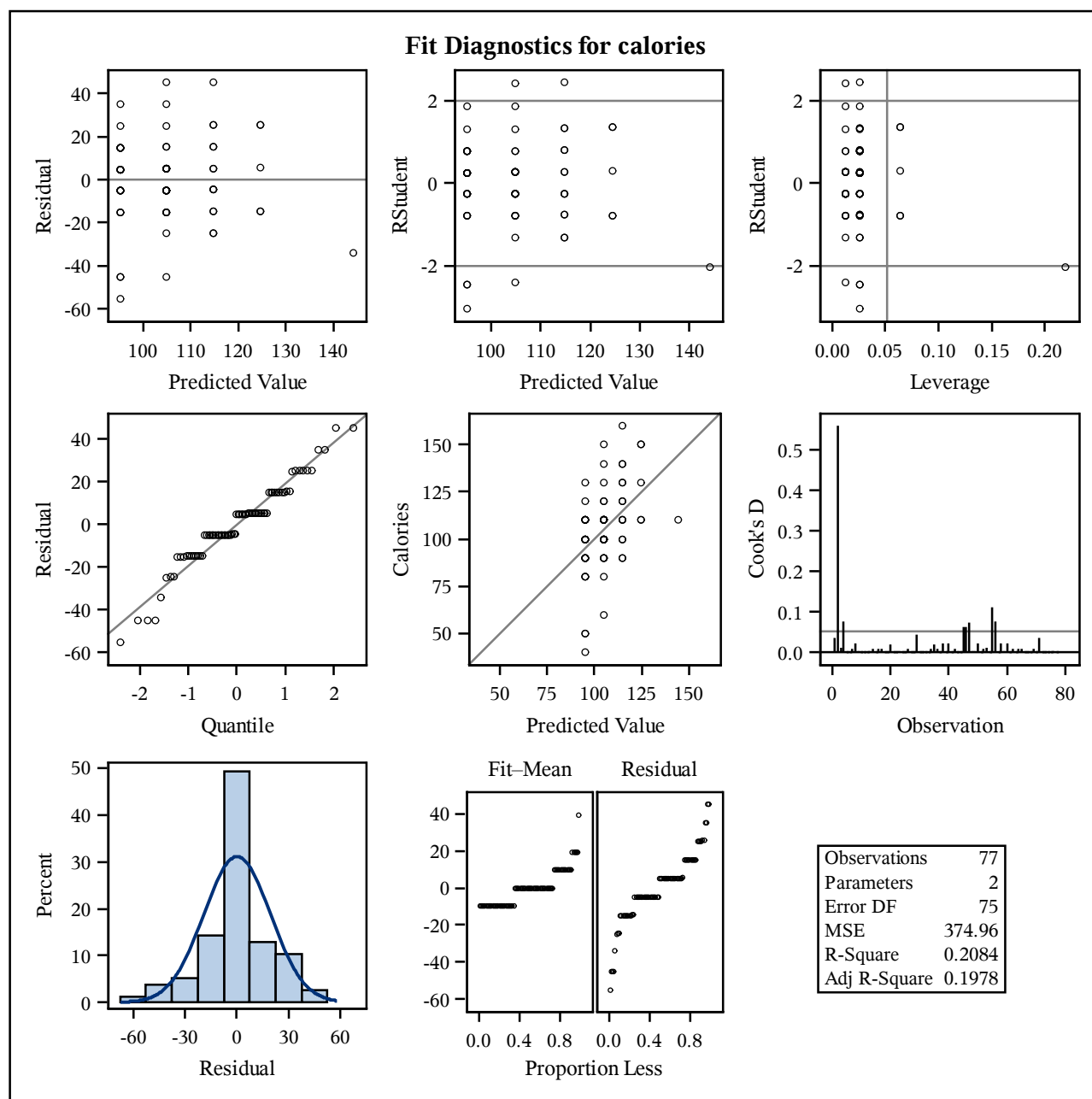
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	7402.89732	7402.89732	19.74	<.0001
Error	75	28122	374.95704		
Corrected Total	76	35525			

Root MSE	19.36381	R-Square	0.2084
Dependent Mean	105.06494	Adj R-Sq	0.1978
Coeff Var	18.43032		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t	95% Confidence Limits	
Intercept	Intercept	1	95.13158	3.14122	30.28	<.0001	88.87394	101.38922
fat	fat	1	9.80601	2.20690	4.44	<.0001	5.40964	14.20237

Assignment 1 - Part 1
regression of calories vs. grams of fat

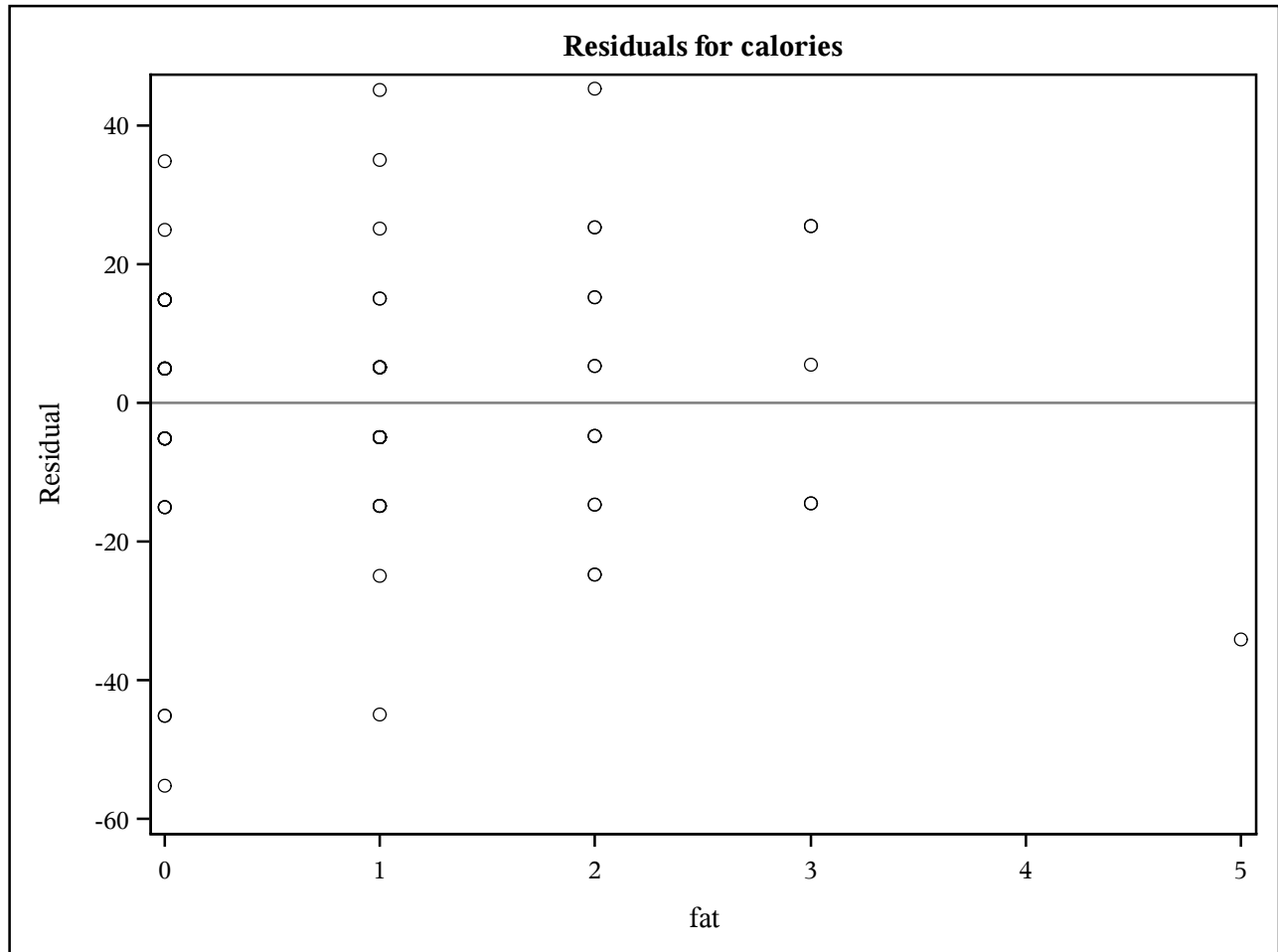
The REG Procedure
Model: MODEL1
Dependent Variable: calories



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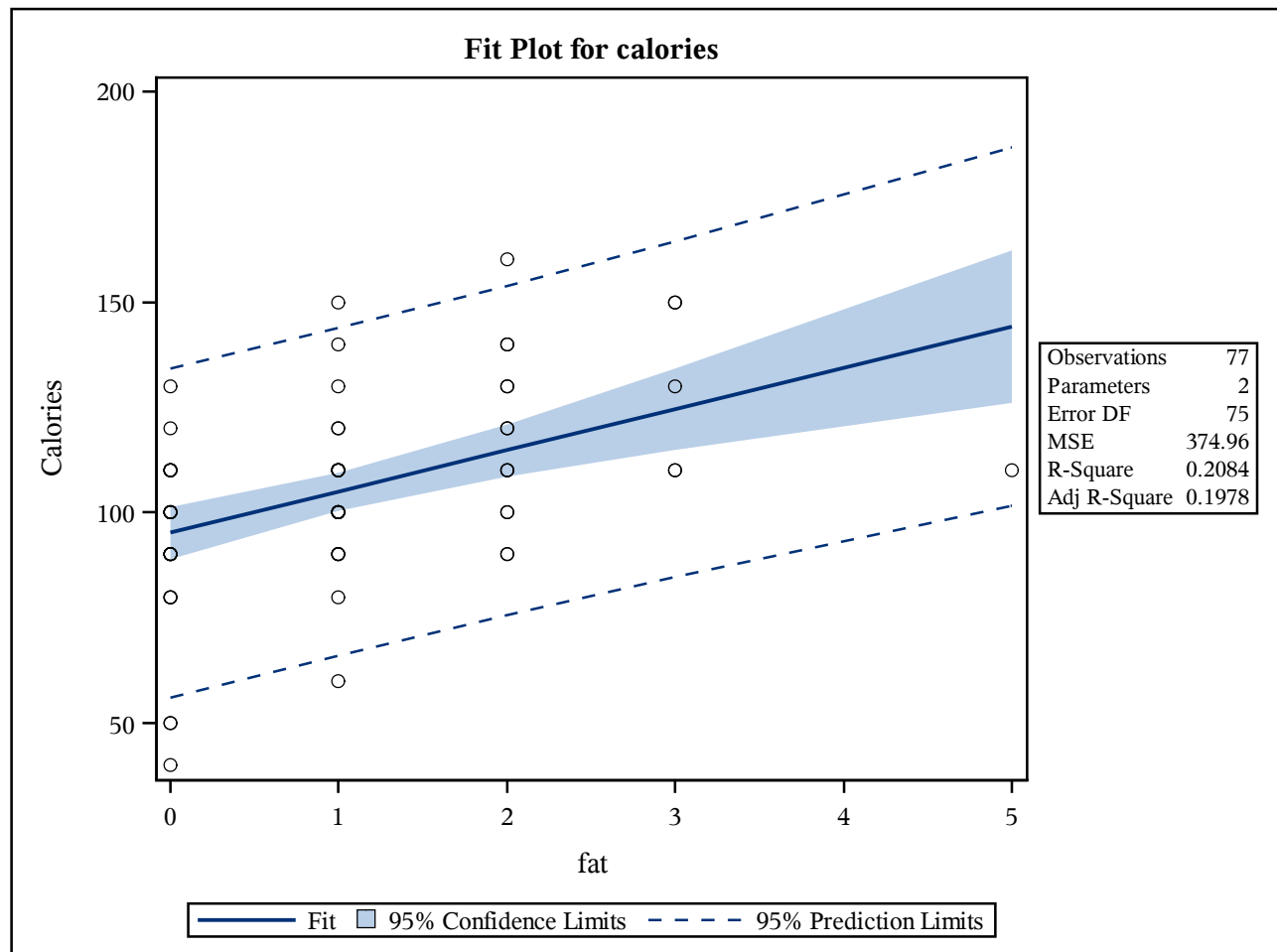
Assignment 1 - Part 1
regresssion of calories vs. grams of fat

The REG Procedure
Model: MODEL1
Dependent Variable: calories



Assignment 1 - Part 1
regresssion of calories vs. grams of fat

The REG Procedure
Model: MODEL1
Dependent Variable: calories



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Assignment 1 - Part 1
Estimated coefficients from the fit

Obs	Model	Dependent	Variable	DF	Estimate	StdErr	tValue	Probt	LowerCL	UpperCL	Label
1	MODEL1	calories	Intercept	1	95.13158	3.14122	30.28	<.0001	88.87394	101.38922	Intercept
2	MODEL1	calories	fat	1	9.80601	2.20690	4.44	<.0001	5.40964	14.20237	fat

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Assignment 1 - Part 1
Estimated coefficients from the fit

Coefficient	Est	SE	P-value	95% CI lower bound	95% CI upper bound
Intercept	95.13	3.14	<.0001	88.87	101.39
fat	9.81	2.21	<.0001	5.41	14.20