In SAS, we predicted mass with bicep, chest, neck, height, and thigh data. We found that the R^2 value for the mass v. thigh linear regression was higher than the rest, which means that the line created through the linear regression is the closest fitting line to the data. Therefore, of these variables, thigh data appears to be the best predictor of mass.

Fit Plot for Mass

Observations	22
Parameters	2
Error DF	20
MSE	59.525
R-Square	0.5284
Adj R-Square	0.5048

Fit ◻ 95% Confidence Limits ------ 95% Prediction Limits

Fit Plot for Mass

Observations	22
Parameters	2
Error DF	20
MSE	50.212
R-Square	0.6022
Adj R-Square	0.5823

Fit ◻ 95% Confidence Limits ------ 95% Prediction Limits

Fit Plot for Mass

Observations	22
Parameters	2
Error DF	20
MSE	43.802
R-Square	0.6529
Adj R-Square	0.6356

Fit   □ 95% Confidence Limits   - - - - 95% Prediction Limits

Fit Plot for Mass

Observations	22
Parameters	2
Error DF	20
MSE	95.665
R-Square	0.242
Adj R-Square	0.2041

Fit   95% Confidence Limits   ----- 95% Prediction Limits

Fit Plot for Mass

Observations	22
Parameters	2
Error DF	20
MSE	36.671
R-Square	0.7094
Adj R-Square	0.6949

Fit   95% Confidence Limits   ----- 95% Prediction Limits