

Methods II: Homework 1

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1. First consider transforming covariates and the outcome.

a. Is categorization necessary for BMI?

```
polymod <- lm(sodium ~ bmi + I(bmi^2) + I(bmi^3) + I(bmi^4), data = hyponat)
anova(polymod)
```

```
## Analysis of Variance Table
```

```
##
```

```
## Response: sodium
```

##		Df	Sum Sq	Mean Sq	F value	Pr(>F)
##	bmi	1	3.5	3.53	0.1542	0.6948
##	I(bmi^2)	1	362.2	362.23	15.8012	8.482e-05 ***
##	I(bmi^3)	1	0.1	0.07	0.0029	0.9568
##	I(bmi^4)	1	19.5	19.48	0.8497	0.3573
##	Residuals	365	8367.2	22.92		

```
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```