Indicator Variables

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \; ; \; \varepsilon \overset{iid}{\sim} N(0, \sigma^2)$$

where Y = lcavol

X_1 = lpsa

X_2 = svi $= \begin{cases} 1 & \text{if SVI = Yes} \\ 0 & \text{otherwise (SVI = No)} \end{cases}$

when svi $= 0$, $X_2 = 0$

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \; ; \; \varepsilon \sim \text{etc.}$$

when svi $= 1$, $X_2 = 1$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 \Rightarrow \underbrace{(\beta_0 + \beta_2)}_{\text{new intercept}} + \beta_1 X_1$$

	SS	df	MS
Residuals	58.452	94	0.622