

ANOVA

$$SST = SSG + SSE$$

$$DF \text{ for } SSG = k-1$$

$$DF \text{ for } SSE = n-k$$

$$MSG = \frac{SSG}{k-1}$$

$$MSE = \frac{SSE}{n-k}$$

$$F = \frac{MSG}{MSE} = \frac{SSG/(k-1)}{SSE/(n-k)}$$

DF for the F-statistic is $(k - 1, n - k)$, order matters for p-values