VIF

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VIFの自動計算でマルチコ判断の助けをしようという回。

```
load("~/計量経済学演習/R data sets for 5e/wage1.RData")
wage1=data
```

OLS regression and Regression output

```
lmres <- lm(log(wage) ~ educ+exper+tenure, data=wage1)
summary(lmres)
```

```
##
## Call:
## lm(formula = log(wage) ~ educ + exper + tenure, data = wage1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.05802 -0.29645 -0.03265  0.28788  1.42809
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 0.284360   0.104190   2.729  0.00656 **
## educ        0.092029   0.007330  12.555  < 2e-16 ***
## exper       0.004121   0.001723   2.391  0.01714 *
## tenure      0.022067   0.003094   7.133 3.29e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.4409 on 522 degrees of freedom
## Multiple R-squared:  0.316,  Adjusted R-squared:  0.3121
## F-statistic: 80.39 on 3 and 522 DF,  p-value: < 2.2e-16
```

linearHypothesisと同じcarを使う

```
library(car)
```

```
## Loading required package: carData
```

Automatically calculate VIF

```
vif(lmres)
```

```
##    educ   exper   tenure
## 1.112771 1.477618 1.349296
```

全然大きくないのでperfect multicoの心配は無用。