# note10

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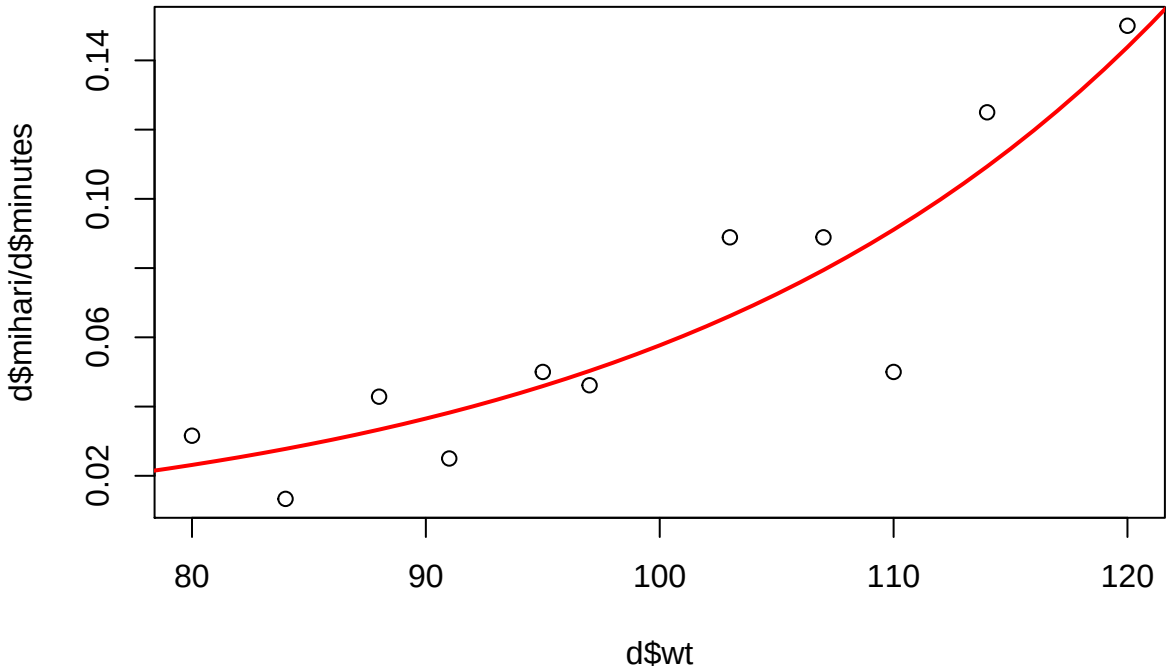
## 演習 10・1

```
setwd("~/Dropbox/R/R で学ぶ統計学入門図版作成用（改訂版）/付録/")
d <- read.csv("enshu10-1.csv")
result <- glm(d$mihari ~ d$wt, offset=log(d$minutes), family = poisson)
summary(result)
```

```
##
## Call:
## glm(formula = d$mihari ~ d$wt, family = poisson, offset = log(d$minutes))
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.4898  -0.3990   0.1883   0.4155   0.7961
##
## Coefficients:
##             Estimate Std. Error z value Pr(>|z|)
## (Intercept) -7.42087    1.20625  -6.152 7.65e-10 ***
## d$wt         0.04568    0.01134   4.029 5.61e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for poisson family taken to be 1)
##
##     Null deviance: 22.292  on 10  degrees of freedom
## Residual deviance:  4.755  on  9  degrees of freedom
## AIC: 45.676
##
## Number of Fisher Scoring iterations: 4
```

```
plot(d$mihari / d$minutes ~ d$wt)
pred.wt <- seq(0, 130)
pred.y <- exp(result$coefficient[1] + result$coefficient[2]*pred.wt)
lines(pred.wt, pred.y, lwd=2, col="red")
```




【考察】体重の係数は 0.04568、有意確率 5.61e-05 より強い効果が検出された。