univariable analysis for Log Love variable (people who loving the product)

```{r}
model.love <- glm(online_only ~ log_love, family = binomial, data = sephora)

sum_model.love <- summary(model.love)

sum_model.love
```

```
Call:
glm(formula = online_only ~ log_love, family = binomial, data = sephora)

Coefficients:
            Estimate Std. Error z value Pr(>|z|)    
(Intercept)  3.51954    0.15560   22.62   <2e-16 ***
log_love    -0.57422    0.01935  -29.68   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 9791.0  on 8986  degrees of freedom
Residual deviance: 8723.3  on 8985  degrees of freedom
AIC: 8727.3

Number of Fisher Scoring iterations: 4
```

Wald test for Log Love variable (people who loving the product)

```{r}
# Wald test

wald_love <- round(sum_model.love$coefficients[2]/
sum_model.love$coefficients[2,2],3)

pvalue_love <- round(2*(pnorm(wald_love)),4)
```

```

$$H_0 : \beta_1 = 0$$

$$W = \frac{\hat{\beta}_1}{\hat{SE}(\hat{\beta}_1)} = -29.68$$

$$P\_value = 0$$

According to the Wald test, the independent variable “number of people loving the product” is statistically significant because its p-values is less than the significant level $\alpha$=0.25
```