STEP 7: Final model

Interaction value_price and number_of_reviews

```{r}
final.modelB <- glm(online_only ~ limited_edition + exclusive + log_price + log_value_price + log_love + limited_edition:log_price + exclusive:log_price, family = binomial, data = sephora)

sum_final.modelB <- summary(final.modelB)

sum_final.modelB
```

```
Call:
glm(formula = online_only ~ limited_edition + exclusive + log_price +
    log_value_price + log_love + limited_edition:log_price +
    exclusive:log_price, family = binomial, data = sephora)

Coefficients:
                           Estimate Std. Error z value Pr(>|z|)
(Intercept)                 3.64058    0.25014  14.554  < 2e-16 ***
limited_edition1           -1.26135    0.50177  -2.514 0.011944 *
exclusive1                 -1.61169    0.36920  -4.365 1.27e-05 ***
log_price                  -0.97427    0.24299  -4.009 6.09e-05 ***
log_value_price             0.89881    0.23827   3.772 0.000162 ***
log_love                   -0.55261    0.01985 -27.844  < 2e-16 ***
limited_edition1:log_price  0.43732    0.13038   3.354 0.000796 ***
exclusive1:log_price        0.36427    0.10158   3.586 0.000336 ***
---
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: 8616.8  on 8979  degrees of freedom
AIC: 8632.8

Number of Fisher Scoring iterations: 4
```

The interations exclusive vs price, price vs value_price, value_price vs number_of_reviews are staditically significants.

$$g_{(online_only)} = 3.641 + -1.261 * limited_edition - 1.612 * exclusive - 0.974 * log_price$$

$$+0.899 * log_value_price - 0.553 limited_edition * log_price + 0.437 exclusive * log_price$$