Customer C Spend on Order X $= c * r * t + \epsilon$

$c =$ Customer's mean order amount in dollars where $c \sim \mathcal{N}(\$100, \$25)$.

$r =$ Scalar corresponding to mean retailer order amount where $r \sim \mathcal{N}(1.0, 0.1)$.

$t =$ Whether or not the customer recieved the experimental treatment $t \in [1, 1.1]$.

$\epsilon =$ Random noise where $\epsilon \sim \mathcal{N}(\$10, \$2)$.

Recall that the data is clustered (we aspire for customers to place multiple orders!), thus:

The number of orders placed by Customer C $\sim exp(\lambda = 1)$.