1.The good that will be picked for the new advertising campaign will have the highest chance of increases in the company’s profits. I’m assuming all three goods are advertised the same currently. Three factors I would calculate for each good are: pageviews to purchase ratio, the user converted percentage and the margin of profit. I would pick the good with the highest product from these three factors.

2. I first see if there is any correlation between marketing spend and the three steps of the onboarding funnel. If they are heavily correlated and marketing spend has decreased, it could be because of marketing. I would also see in the past three years if signups had slowed down before. It could be that one month out of year signups are slower.

3. I would factor in hotels available. I would also fact in any data from session information.

4. I would define atypical churn as majority of users become inactive. I would calculate the following for churn user: average length of session, find the mode time of login, average time between login, mean amount of time user were active. I would do a t-test for each these variables using churn users and active user. If t-values are small, churn would be atypical.