

1. What structure did your final decision tree classifier have?
 - a. The tree has 4 leaves, one of which predicts crumpets. The variables used are breakfast tea, pepperoni as pizza topping, and dinner papaya drink
2. What was the if-else tree you got? (Copy it into your write-up for completeness.)
 - a.

```
if entry[70] <= 0:
    return 0
else:
    if entry[89] <= 0:
        if entry[109] <= 0:
            return 1
        else:
            return 0
    else:
        return 0
```
3. Run the original training data back through your classifier. What was the accuracy of your resulting classifier, on the training data?
 - a. The classifier got 248 wrong out of 4000, or 6.2%
4. What else did you learn along the way here?
 - a. I learned that when calculating the bha coefficient, regularization is desperately needed to offset the possibility of extremely small nodes with 100% purity.
5. What can you conclude?
 - a. I can conclude that people who like tea for breakfast are most likely to prefer crumpets over other cookies by a large amount, eliminating almost $\frac{7}{8}$ of the training data with a single branch.