

- a. My stopping criteria was the subset having 5 or fewer entries, or a GINI less than 0.1
- b. No pruning was used
- c. Weighted GINI binary splits were used as instructed
- d. `if(tableLine.Sugar <= 19)`

```

    if(tableLine.Egg <= 12)
        if(tableLine.ButterOrMargarine <= 17)
            tableLine.Guess = 1;
        else
            tableLine.Guess = 0;
        end
    end

```

```

    else
        tableLine.Guess = 0;
    end

```

```

else

```

```

    if(tableLine.Egg <= 23)
        if(tableLine.CannedPumpkin_or_Fruit <= 1)
            tableLine.Guess = 0;
        else
            tableLine.Guess = 1;
        end
    end

```

```

    else
        tableLine.Guess = 1;
    end

```

```

end

```

- e. $73/76 = 96.05\%$ accurate (1 is a muffin, 0 is a cupcake)
- f. The trainer program wrote the entire classifier, i did not modify it.
- g. I learned how to use matlab functions, and that programs to write decision trees take quite a while to run.
- h. The assignment was fairly easy to get done once i got through fiddling with matlab functions and tables to get it to do what i want. Each branch rapidly split the data up, i did not need to go anywhere near the 8 statement limit given.