

Wine Quality Prediction

```
#include <stdio.h>

#include <stdlib.h>

#include <math.h>

#define MAX_DATA_POINTS 100

float slope = 0.5;

float intercept = 3;

float predictWineQuality(float acidity)
{
    return slope * acidity + intercept;
}

int main() {

    float acidity[MAX_DATA_POINTS] = {6.2, 7.1, 6.5, 5.8, 6.3, /* ... */};

    int numDataPoints = 5;

    printf("Wine Acidity Data:\n");

    for (int i = 0; i < numDataPoints; i++)

    {

        printf("Sample %d - Acidity: %.2f\n", i + 1, acidity[i]);

    }

    printf("\nPredicted Wine Quality:\n");

    for (int i = 0; i < numDataPoints; i++)

    {

        float predictedQuality = predictWineQuality(acidity[i]);

        printf("Sample %d - Predicted Quality: %.2f\n", i + 1, predictedQuality);

    }

    return 0;

}
```