**Tracing Variables Worksheet 1 Name -**

Trace the code printing the values of the variables in the columns below. Show the final output in the comments.

1.

const double TAX\_RATE = 0.05; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 3;

double totalCost = 0.0;

totalCost = numSongs \* PRICE\_SONG + numSongs \* PRICE\_SONG \* TAX\_RATE;

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_4.725\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.

const double SONG\_FEE = 0.25; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 10;

double totalCost = 0.0;

totalCost = numSongs \* PRICE\_SONG + numSongs \* SONG\_FEE;

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_\_\_\_17.5\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.

const double SONG\_FEE = 0.25; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 10;

double totalCost = 0.0;

totalCost = numSongs \* (PRICE\_SONG + SONG\_FEE);

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_\_\_\_\_\_17.5\_\_\_\_\_\_\_\_\_\_\_\_

4.

const double SONG\_FEE = 0.40; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 2;

int totalCost = 0.0;

totalCost = numSongs \* (PRICE\_SONG + SONG\_FEE);

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_\_\_\_\_\_3.8\_\_\_\_\_\_\_\_\_\_\_\_

5.

const double TAX\_RATE = 0.05; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 5;

double totalCost = 0.0;

totalCost = (1 + TAX\_RATE) \* numSongs \* PRICE\_SONG;

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_\_\_\_\_\_\_7.875\_\_\_\_\_\_\_\_\_\_\_

6.

const double TAX\_RATE = 0.05; numSongs totalCost

const double PRICE\_SONG = 1.50;

int numSongs = 5;

double totalCost = 0.0;

totalCost = numSongs \* PRICE\_SONG + numSongs \* TAX\_RATE;

cout << "Total is $" << totalCost << endl; // \_\_\_\_\_\_\_\_\_\_\_7.75\_\_\_\_\_\_\_\_\_\_\_\_