Practice S11P03: Tiles

http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html

Week of release: Week 11

Objectives: Array of structures

Task statement:

Write a program **tiles.c** to read in an integer (greater than 1) indicating the number of tiles, followed by the tiles' data (length, width and price per square metre). A structure called **tile_t** should be created and the tiles' data should be stored in an array of elements of such structure. The program then computes and outputs the difference in cost between the cheapest tile and the most expensive tile.

(Actually, to get the answer there is no need to store the data in an array. This is done just for you to practise using array of structures.)

The length and width are integers in metres, while the price, in dollars, is of type **float**. You may assume that there are at least 2 tiles and at most 20 tiles.

You should write a modular program with the following functions:

```
// To read tiles' data into array tiles
// Return the number of tiles read
int scan_tiles(tile_t tiles[]);

// Return the difference in cost between cheapest
// tile and most expensive tile in the array tiles
float difference(tile_t tiles[], int size);
```

Sample run:

```
Enter number of tiles: 5
Enter data for 5 tiles:
5 8 0.20
3 5 0.18
6 10 0.31
4 6 0.27
2 4 0.38
Largest difference = $15.90
```