

Worksheet 2

Enter each of the following programs. Try to anticipate what the output will be. Then execute them and compare your output expectations with what are really displayed.

2.1 The following program finds the weight lost by a person due to the hours spent on tennis, swimming and jogging. The numbers of calories burnt per hour by tennis, swimming and jogging are 250, 385 and 475 respectively. A person loses 1 kg of weight for each 7700 calories burnt.

```
/* This program reads the hours spent on playing tennis, swimming and
   jogging and determine the number of kg lost */

#include <stdio.h>
#define Conversion_factor 7700
#define Tennis_factor 250
#define Swimming_factor 385
#define Jogging_factor 475

main (void)
{
    int TennisHours;
    int SwimmingHours;
    int JoggingHours;
    float Weight;

    printf("\nWelcome. This program finds the weight");
    printf(" loss on tennis, swimming and jogging.\n\n");

    printf("Please input the hours spent on tennis : ");
    scanf("%d", &TennisHours);
    printf("Please input the hours spent on swimming : ");
    scanf("%d", &SwimmingHours);
    printf("Please input the hours spent on jogging : ");
    scanf("%d", &JoggingHours);

    Weight = (float) (TennisHours * Tennis_factor
                     + SwimmingHours * Swimming_factor
                     + JoggingHours * Jogging_factor)/Conversion_factor;

    printf("\n");
    printf("Hours spent on tennis is\t%5d\n", TennisHours);
    printf("Hours spent on swimming is\t%5d\n", SwimmingHours);
    printf("Hours spent on jogging is\t%5d\n", JoggingHours);

    printf("\n-----\n");
    printf("The weight lost on the activities is %6.2f kg\n", Weight);

}
```

Sample running:

Welcome. This program finds the weight loss on tennis, swimming and jogging.

Please input the hours spent on tennis : **25**<CR>

Please input the hours spent on swimming : **30**<CR>

Please input the hours spent on jogging : **45**<CR>