41200/41203 year 1 Programming

2.2 The following program first reads four input marks and then displays the computed total and average mark.

```
/* This program reads the marks of four students and prints
   the total and average of the marks. */
#include <stdio.h>
main (void)
  int Mark1;
  int Mark2;
  int Mark3;
  int Mark4;
  int Total:
  float Average;
     printf("\nWelcome. This program finds the total");
     printf(" and average of four input marks.\n\n");
     printf("Please input the first mark (0 - 100) : ");
     scanf("%d", &Mark1);
     printf("Please input the second mark (0 - 100): ");
     scanf("%d", &Mark2);
     printf("Please input the third mark (0 - 100): ");
     scanf("%d", &Mark3);
     printf("Please input the fourth mark (0 - 100): ");
     scanf("%d", &Mark4);
     Total = Mark1 + Mark2 + Mark3 + Mark4:
     Average = (float)Total/4;
     printf("\n");
     printf("The input four marks are \n");
     printf("\t%5d\t\%5d\t\%5d\t\%5d\t, Mark1, Mark2, Mark3, Mark4);
     printf("\n");
     printf("The total of the four marks %8d\n", Total);
     printf("The average of the four marks %6.1f\n", Average);
```

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Sample running:

Welcome. This program finds the total and average of four input marks.

Please input the first mark (0 - 100): 90<CR>
Please input the second mark (0 - 100): 80<CR>
Please input the third mark (0 - 100): 30<CR>
Please input the fourth mark (0 - 100): 25<CR>

The input four marks are

Task: Try to modify the program so that the deviation of each mark from the average will be shown as follows.

```
The input four marks are
97 36 40 30

The total of the four marks 203

The average of the four marks 50.8
```

```
Mark Deviation
97 46.3
36 -14.8
40 -10.8
30 -20.8
```

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