

```

1  /*#####*/
2  /*HW00_AhmetEmin_Kaplan_131044042_part1.c*/
3  /**/
4  /*Written by Ahmet Emin Kaplan on February 14, 2015*/
5  /**/
6  /*Description*/
7  /**/
8  /*Takes the integral of a given 1st degree polynomial*/
9  /*Inputs:*/
10 /* -Coefficients of the 1st degree polynomial*/
11 /* -Zero input value of the resulting polynomial*/
12 /*Outputs:*/
13 /* -Resulting 2nd degree polynomial*/
14 /*#####*/
15 /**/
16 /*-----*/
17 /*                               Includes*/
18 /*-----*/
19 #include <stdio.h>
20 #define CORRECTION_FOR_COEFFICIENT 0.5
21
22
23 int main()
24 {
25     double ia0,ia1;           /*Coefficients of the input poly*/
26     double p0;                /*P(0) value of the resulting poly*/
27     double ra1,ra2;           /*Coefficients of the resulting poly*/
28
29     /*Get the 1st degree input polynomial*/
30     printf("Enter the coefficients of the polynomial (higher to lower order)>");
31     scanf("%lf%lf",&ia1,&ia0);
32     printf("Your input polynomial is\n%fx + (%f) .\n",ia1,ia0);
33
34     /*Get the zero input value of the resulting poly*/
35     printf("Enter p(0) value for the resulting polynomial>");
36     scanf("%lf",&p0);
37
38     /*Calculate the resulting poly*/
39     ra1 = ia0;
40     ra2 = ia1*CORRECTION_FOR_COEFFICIENT;
41
42     /*Output the resulting poly*/
43     printf("The resulting polinomial is\n");
44     printf("%5.3fx^2 + (%5.3f)x + (%5.3f) .\n",ra2,ra1,p0);
45
46     return(0);
47 }
48
49 /*#####*/
50 /*                               End of HW00_AhmetEmin_Kaplan_131044042_part1.c*/
51 /*#####*/

```