

```

1  /*****
2  /*HW00_HASAN_MEN_131044009_part2.c
3  /*
4  /*Written by Hasan MEN on February 14, 2015
5  /*
6  /*Description
7  /*
8  /*Takes the coefficients of polies and find multiplication of polies
9  /*Inputs:
10 /* -Coefficients of the 2nd degree polynomials
11 /*Outputs:
12 /* -Resulting 2nd degree polynomials
13 /* -The multiplication of them(4th degree poly)
14 *****/
15 /*
16 /*-----
17 /* Includes
18 /*-----
19 #include <stdio.h>
20
21 int
22 main(){
23     /* Start_of_main */
24     /*coefficients of input polynomials */
25     double coefA, coefB, coefC,
26            coefD, coefE, coefF;
27
28     /*coefficients of output poly*/
29     double newCoefA, newCoefB, newCoefC, newCoefD, newCoefE;
30     /* enf of variables */
31
32     /*Get first polynomial*/
33     printf("Enter the coefficients of the first poly(from A to C -AX^2+BX+C)>");
34     scanf("%lf%lf%lf", &coefA, &coefB, &coefC);
35
36     /*Get the second polynomial*/
37     printf("Enter the coefficients of the second poly(from D to E-DX^2+EX+F)>");
38     scanf("%lf%lf%lf", &coefD, &coefE, &coefF);
39
40     /*Check the polynomials on screen */
41     printf("1st Poly is %3.2f*x^2 + %3.2f*x + %3.2f \n", coefA, coefB, coefC);
42     printf("2nd Poly is %3.2f*x^2 + %3.2f*x + %3.2f \n\n", coefD, coefE, coefF);
43
44     /*Calculate new coefficient of 4th degree polynomial*/
45     newCoefA = (coefA * coefD);
46     newCoefB = (coefA * coefE)+(coefB * coefD);
47     newCoefC = (coefA * coefF)+(coefB * coefE)+(coefC * coefD);
48     newCoefD = (coefB * coefF)+(coefC * coefE);
49     newCoefE = (coefC * coefF);
50
51     /*Output the multiplication of 2 two polies*/
52     printf("The multiplication of polies => \n ");
53     printf("(%.1f)X^4 + (%.1f)X^3 + (%.1f)X^2 + (%.1f)X + (%.1f)\n",
54            newCoefA, newCoefB, newCoefC, newCoefD, newCoefE);
55     return 0;
56 }
57
58 /*****
59 /* End of HW00_HASAN_MEN_131044009_part2.c
60 *****/

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