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/*
A program for milikan experiment. This program is created by Mohammad Sazzad Hossain.
*/

# include <iostream.h>
# include <stdio.h>

   int main ()
   {
      double x[] = {0.0, 0.5, 1.0, 1.5, 2.0}, f[] = {1, 0.938470, 0.765198, 0.511828, 0.223891};
      double xp;
      int num = 5;
      printf("Interpolate value:");
      scanf("%lf",&xp);

   for (int j = 1; j < 5; j++)
   {
   for (int i = 0; i < (num - 1); i++)
   {
      f[i] = ((xp - x[i + j]) * f[i] / (x[i] - x[i + j])) + ((xp - x[i]) * f[i + 1] / (x[i + j] - x[i]));
      cout << f[i] << endl;

   }
      num--;
      cout << endl;
   }

   return 0;
   }
```