```
Code
 #include<stdio.h>
# Include <math.h>
#define f(x) 3K2AX-BKX+2
#define E 0.005
 int main () 2
   int it = 1/
  float aliam, auifalifauifami
printf("Assume First initial guesc:(n");
seanf("%f", & 21);
 Printf('Assume second initial guess: In')
Seanfoughf" & du);
 for = f(xi);
 flay = f(Au)
  if (fx1*fx4>0)
 printf("Solution does not exit In");
 else f
   begin:
   2 m=(11+714)/2/
   f/m=f(xm);
   (f) (f) (f) (f)
    MU=Am;
  PISET
   MI=2mi
  tal=fami
 3 if (cfabs(xu-xx1(xx) < E) {
  2m = (71+21)/2;

Printf("In Root = %.2f"/1m);

Printf("In functional value = %f" f(am));

Printf("In Iteration sleps = %d", itn);
  3 else£
   goto begin; 33
     return 6/
```

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2.
```

```
Code
# include < stdio.h>
# include (math. h>
float f (float x) {
       Jeturn 3 * x - cos(2)-1/
   float fd (float x) {
        return 3+sin (21);
  int main () 7
   int ita=11
  float xixy fxi, fdxi, ovotie;
printf ("In Enter the initial value:");
Spanf ("% f", & xi);
printf ("Enter tolerable error:");
Sconfi "% f , & e);
  begin:
fxi=f(xi);
  fdxi=fd(xi)i
  n1=xi-(fai/fdxi);
  if (Cfabs (nu-ni)/71) <e){
  printf("Infoot = % f"/MI);
printf("In function ralue = % f" f (xxx));
printf("In Iteration steps = % d" itr);
  jz
elsez
    71 = 81;
f(x1= f(x1);
    ito tti
    goto begin;
    return of
```

```
Code
#include stdio-h>
#include <math.h>
#define E 0.01
float F(float 2){
  return cos(2)+2*sin(2)+2*xi
 int main() {
   int its=1i
   float 21,22,23, f1, f2, f3;
   printf("Enter first initial guess.");
   seanf ("%f"(221);
   printf("/f" (22);
    f1 = F(x1);
   f2 = f(2);
   begin:
 23 = (f2 k 21 - f1 k 28)/ (f2-f1);
  f3=f(x3)i
    if (fabs ((a3-22)/23) < E) f
  printf("In Root = %.2f"(23);
printf("In function value = %4f" f(23));
  printf ("In Iteration steps=%d", its);
 else f
   ita ++1
   91 = 22/
   f1=12/
   22 = 23/
  goto begins
  Jeturn Oi
```

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```
4.
     Code
      #include < stdio.h>
      #include < stallib. h>
     #include < math. h>
     #define F 0.005
      fluat F (float x)
       veturn (2 + 2 + 2 - 2 - 5)/
      Hoot of (float x) {
         roturn pow ((2+5), (2.0/5.0));
      2
      int main(){
        int ito=0;
        Float 20,21 reprori
       Printf( "Enter the initial gues: ");
Scanf("%f", &20);
        begin:
        1(0x) 8= IR
        error=fabs (x1-x0)/x1)
        if (error <= E) {

printf("Root = %, of "x1);

printf("In functional value: %4f", f(x1));

printf("In Number of steps: %d", itr);
      } elsef
         X0= X1/
         1+0++
        goto begin;
```

return 0;

```
Code
 # include (stdio.h)
# include < stalib. b>
# include < math h>
#define POU CaC4] KXXXXXXXXX+aC3]KXXXXXX
                 a [2] * x * x + a [1] + x + a [0] &
 float a Gool b Gool;
 int main () of
   float xi
 int n, i;
printf("Enter degree of polynomial: In");
seanf("%d", &n);
 printf("Enter the coeffecients from lower order to higher order !In");
 for ( i = n; i>=0; i-){
scanf("%f", & a [i]);
 2
 printf("Enter the value at which polynomial to be
          evaluated : \n");
scanf ("%f" & 2);
  b [n] =a [n];
  While (n>0)7
    b [n-1] = a [n-1] + b [n] + xi
 printf("Value of polynomial p(%f) = %f"(x,b[0]);
 return o;
```

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