

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int    a, b;
6      double x, y;
7
8      printf("%.2f\n", 3.5+1/2+56%10);
9
10     scanf("%d", &a);
11     printf("%d\n", a++*1/3);
12
13     scanf("%d%lf%lf", &a, &x, &y);
14     printf("%.2f\n", x+a%3*(int)(x+y)%2/4);
15
16     scanf("%d%d%lf%lf", &a, &b, &x, &y);
17     printf("%.2f", (float)(a+b)/2+(int)x%(int)y);
18
19     return 0;
20 }
21
```

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int    a, b, c;
6      double x, y;
7
8      scanf("%d%d%d", &a, &b, &c);
9      printf("%d\n", b>c&&b==c);
10
11     scanf("%d%d%d", &a, &b, &c);
12     printf("%d\n", !(a>b)&&!c||1);
13
14     scanf("%d%d%d", &a, &b, &c);
15     printf("%d\n", !(x=a)&&(y=b)&&0);
16
17     scanf("%d%d%d", &a, &b, &c);
18     printf("%d\n", !(a+b)+c-1&&b+c/2);
19
20     printf("%d\n", 1&&30%10>=0&&30%10<=3);
21
22     return 0;
23 }
24
```

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int a, b, c;
6
7      scanf("%d%d", &a, &b);
8      printf("%d\n", a+=a+b);
9
10     scanf("%d%d%d", &a, &b, &c);
11     printf("%d\n", a*=b%c);
12
13     scanf("%d%d", &a, &c);
14     printf("%d\n", a/=c-a);
15
16     scanf("%d", &a);
17     printf("%d\n", a+=a-=a*=a);
18
19     scanf("%d%d", &a, &b);
20     printf("%d\n", a=(a==b,a+5,a/5));
21
22     scanf("%d%d", &a, &b);
23     printf("%d\n", (a>=b>=2)?1:0);
24
25     return 0;
26 }
27
```

```

1  #include <stdio.h>
2
3  int main()
4  {
5      unsigned int i, n;
6      unsigned int t=1;
7      float f_pi=2.0, f_i=1.0;
8      double d_pi=2.0, d_i=1.0;
9
10     scanf("%u", &n);
11     scanf("%u", &t);
12
13     for (i=0; i<n; i++) {
14         switch (t) {
15             case 1:
16                 f_pi *= 4.0*f_i*f_i/(2*f_i-1)/(2*f_i+1);
17                 f_i += 1.0;
18                 break;
19             case 2:
20                 d_pi *= 4.0*d_i*d_i/(2*d_i-1)/(2*d_i+1);
21                 d_i += 1.0;
22                 break;
23         }
24     }
25
26     switch (t) {
27         case 1:
28             printf("%.8f\n", f_pi);
29             break;
30         case 2:
31             printf("%.16f\n", d_pi);
32             break;
33     }
34
35     return 0;
36 }
37

```

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int    xi, yi;
6      float  xf, yf;
7
8      printf("输入一个整数:");
9      scanf("%d", &xi);
10     if (xi<0 || xi>=30) {
11         printf("x输入错误, 要求0<=x<30");
12         return 1;
13     }
14     switch (xi/10) {
15         case 0:
16             yi = xi;
17             break;
18         case 1:
19             yi = xi*xi+1;
20             break;
21         case 2:
22             yi = xi*xi*(xi+1)+1;
23     }
24     printf("x=%d时, y=%d\n", xi, yi);
25
26     printf("输入一个实数:");
27     scanf("%f", &xf);
28     if (xf<0 || xf>=30) {
29         printf("x输入错误, 要求0<=x<30");
30         return 2;
31     }
32     if (xf<10)
33         yf = xf;
34     else if (xf<20)
35         yf = xf*xf+1;
36     else
37         yf = xf*xf*(xf+1)+1;
38     printf("x=%f时, y=%f", xf, yf);
39
40     return 0;
41 }
42
```

```

1  #include <stdio.h>
2
3  int main()
4  {
5      int    n, i;
6      int     s1, s2;
7      double s3;
8
9      scanf("%d", &n);
10     if (n<=0) {
11         printf("输入数据不是正整数");
12         return 1;
13     }
14
15     s1 = s2 = 0;
16     s3 = 0.0;
17     for (i=1; i<=n; i++) {
18         s1 += i;
19         s2 += (2*i)-1;
20         s3 += ((i%2)?1.0:-1.0)/i;
21     }
22     printf("for:s1=%d,s2=%d,s3=%f\n", s1, s2, s3);
23
24     s1 = s2 = 0;
25     s3 = 0.0;
26     i = 1;
27     while (i<=n) {
28         s1 += i;
29         s2 += (2*i)-1;
30         s3 += ((i%2)?1.0:-1.0)/i;
31         i++;
32     }
33     printf("while:s1=%d,s2=%d,s3=%f\n", s1, s2, s3);
34
35     s1 = s2 = 0;
36     s3 = 0.0;
37     i = 1;
38     do {
39         s1 += i;
40         s2 += (2*i)-1;
41         s3 += ((i%2)?1.0:-1.0)/i;
42         i++;
43     } while (i<=n);
44     printf("do while:s1=%d,s2=%d,s3=%f\n", s1, s2, s3);
45
46     return 0;
47 }
48

```

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int n;
6      int i, j;
7      long long sum, fact;
8
9      scanf("%d", &n);
10     if (n<1 || n>16) {
11         printf("输入错误");
12         return 1;
13     }
14
15     sum = 0;
16     for (i=1; i<=n; i++) {
17         fact = 1;
18         for (j=1; j<=i; j++)
19             fact *= j;
20         sum += fact;
21     }
22     printf("两层循环结果: %lld\n", sum);
23
24     sum = 0;
25     fact = 1;
26     for (i=1; i<=n; i++) {
27         fact *= i;
28         sum += fact;
29     }
30     printf("单层循环结果: %lld\n", sum);
31
32     return 0;
33 }
34
```

```

1  #include <stdio.h>
2  #include <math.h>
3
4  int main()
5  {
6      double a0, a1, a2, a3;
7      double e;
8      double x, x1;
9      double a, b, c;
10     double fa, fb, fc;
11     int n;
12
13     scanf("%lf%lf%lf%lf", &a3, &a2, &a1, &a0);
14     scanf("%lf", &e);
15
16     // 牛顿法
17     scanf("%lf", &x1);
18     n = 0;
19     do {
20         x = x1;
21         x1 = x - (a3*x*x*x+a2*x*x+a1*x+a0) / (3*a3*x*x+2*a2*x+a1);
22         n++;
23     }while (fabs(x1-x)>=e);
24     printf("%f\n%d\n", x1, n);
25
26     // 二分法
27     scanf("%lf%lf", &a, &b);
28     n = 0;
29     fa = a3*a*a*a+a2*a*a+a1*a+a0;
30     fb = a3*b*b*b+a2*b*b+a1*b+a0;
31     if (fa*fb > 0) {
32         printf("区间内无解或有多解");
33         return 1;
34     }
35     do {
36         c = (a+b)/2;
37         fc = a3*c*c*c+a2*c*c+a1*c+a0;
38         if (fa*fc > 0)
39             a = c;
40         else
41             b = c;
42         n++;
43     }while (fabs(b-a)>=e);
44     printf("%f\n%d\n", b, n);
45
46     return 0;
47 }
48

```