

Code

```
#include "stdio.h"
#include "math.h"

main()
{
    int x,y,z;
    FILE *fp;

    fp = fopen("output.dat","w");

    for (x = 1; x < 4; x++)
        fprintf(fp,"X = %d, ",x);

    fprintf(fp,"\n");

    for (x = 5; x <= 25; x = x + 5)
        fprintf(fp,"X = %d, ",x);

    fprintf(fp,"\n");

    for (x = 10; x >0; x--)
        fprintf(fp,"X = %d, ",x);

    fprintf(fp,"\n");

    for (x = 0,y = 0; x < 3; y++,x++)
        fprintf(fp,"X = %d, ",x+y);

    fprintf(fp,"\n");

    for (x = 0,y = 10; x < 3 && y > 6; y--,x++)
        fprintf(fp,"X = %d, ",x+y);

    fprintf(fp,"\n");

    for (x = 1; x < 3; x++)
        for (y = 1; y < 3; y++)
            fprintf(fp,"X = %d,Y = %d, ",x,y);

    fprintf(fp,"\n");

    for (x = 1; x < 3; x++)
        for (y = 1; y < 3; y++)
```

```

        fprintf(fp,"X *Y= %d, ",x*y);

fprintf(fp,"\n");

for (x = 1; x < 8; x++)
    fprintf(fp,"X = %d, ",x++);

fprintf(fp,"\n");

x = 36;
if (x == 37)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 36;
y = 45;
if (x == 36 && y == 42)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 37;
y = 45;
if (x == 37 || y == 42)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 37;
y = 42;
z = 56;
if ( (x == 37 && y == 42) || z == 68)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

```

```

x = 37;
y = 45;
z = 56;
if ( ( x == 37 && y == 42) || z == 56)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 37;
y = 45;
z = 58;
if ( ( x == 37 && y == 42) || z == 68)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 37;
y = 42;
z = 56;
if ( ( x *y == 458 && sqrt(y / x ) == 2 ) || z == 56)
    fprintf(fp,"Yes");
else
    fprintf(fp,"No");

fprintf(fp,"\n");

x = 0;
while (x < 4)
    fprintf(fp,"X = %d, ",x++);

fprintf(fp,"\n");

x = 10;
while (x > 4)
    fprintf(fp,"X = %d, --x);

fprintf(fp,"\n");

x = 1;
while (x < 10)
    {

```

```
    if (x == 5)
        break;
    fprintf(fp,"X = %d, ",x++);
}
```

```
fprintf(fp,"\n");
```

```
x = 1;          //      Note this one used to be an endless loop. I modified it.
```

```
while (x < 10)
{
    x++;
    if (x == 5)
        continue;
    fprintf(fp,"X = %d, ",x);
}
```

```
fprintf(fp,"\n");
```

```
x = 3;
switch(x)
{
    case 1:
        fprintf(fp,"Hello");
        break;
    case 2:
        fprintf(fp,"how");
        break;
    case 3:
        fprintf(fp,"are");
        break;
    case 4:
        fprintf(fp,"you.");
        break;
}
```

```
fprintf(fp,"\n");
```

```
x = 2;
switch(x)
{
    case 1:
        fprintf(fp,"Hello");
        break;
    case 2:
        fprintf(fp,"how");
    case 3:
```

```
        fprintf(fp,"are");
    case 4:
        fprintf(fp,"you.");
        break;
    }
```

```
fprintf(fp,"\n");
```

```
x = 7;
switch(x)
{
    case 1:
        fprintf(fp,"Hello");
        break;
    case 2:
        fprintf(fp,"how");
        break;
    case 3:
        fprintf(fp,"are");
        break;
    case 4:
        fprintf(fp,"you.");
        break;
}
```

```
fprintf(fp,"\n");
```

```
x = '3';
switch(x)
{
    case 1:
        fprintf(fp,"Hello");
        break;
    case 2:
        fprintf(fp,"how");
        break;
    case 3:
        fprintf(fp,"are");
        break;
    case 4:
        fprintf(fp,"you.");
        break;
}
```

```
fprintf(fp, "\n");

x = 7;
switch(x)
{
    case 1:
        fprintf(fp, "Hello");
        break;
    case 2:
        fprintf(fp, "how");
        break;
    case 3:
        fprintf(fp, "are");
        break;
    case 4:
        fprintf(fp, "you.");
        break;
    default:
        fprintf(fp, "what?");
        break;
}

fclose(fp);
}
```

Output

X = 1, X = 2, X = 3,

X = 5, X = 10, X = 15, X = 20, X = 25,

X = 10, X = 9, X = 8, X = 7, X = 6, X = 5, X = 4, X = 3, X = 2, X = 1,

X = 0, X = 2, X = 4,

X = 10, X = 10, X = 10,

X = 1, Y = 1, X = 1, Y = 2, X = 2, Y = 1, X = 2, Y = 2,

X * Y = 1, X * Y = 2, X * Y = 2, X * Y = 4,

X = 1, X = 3, X = 5, X = 7,

No

No

Yes

Yes

Yes

No

Yes

X = 0, X = 1, X = 2, X = 3,

X = 9, X = 8, X = 7, X = 6, X = 5, X = 4,

X = 1, X = 2, X = 3, X = 4,

X = 2, X = 3, X = 4, X = 6, X = 7, X = 8, X = 9, X = 10,

are

howareyou.

what?