

```
# Write a program to print numbers from 1 to 10 using a while loop.
```

```
i = 1
while i <= 10:
    print(i,end=" ")
    i +=1
```

```
1 2 3 4 5 6 7 8 9 10
```

```
# Print numbers from 0 to 5 using a while loop.
```

```
i = 0
while i <= 5:
    print(i,end=" ")
    i +=1
```

```
0 1 2 3 4 5
```

```
# Print numbers from 5 to 15 using a while loop.
```

```
i = 5
while i <= 15:
    print(i,end=" ")
    i +=1
```

```
5 6 7 8 9 10 11 12 13 14 15
```

```
# Print numbers from 10 to 1 using a while loop.
```

```
i = 10
while i >= 1:
    print(i,end=" ")
    i -=1
```

```
10 9 8 7 6 5 4 3 2 1
```

```
# Print all even numbers between 1 and 20 using a while loop.
```

```
i = 1
while i <= 20:
    if i % 2 == 0:
        print(i,end=" ")
    i +=1
```

```
2 4 6 8 10 12 14 16 18 20
```

```
# Print all odd numbers between 1 and 20 using a while loop.
```

```
i = 1
while i <= 20:
    if i % 2 != 0:
        print(i,end=" ")
    i +=1
```

```
1 3 5 7 9 11 13 15 17 19
```

```
# Print numbers from 1 to 50 with a step of 5 using a while loop.
```

```
i = 1
while i <= 50:
    print(i,end=" ")
    i +=5
```

```
# Print the square of numbers from 1 to 10 using a while loop.
```

```
i = 1
while i <= 10:
    print(i ** 2,end=" ")
    i += 1
```

```
1 4 9 16 25 36 49 64 81 100
```

```
# Print the cube of numbers from 1 to 5 using a while loop.
```

```
i = 1
```

```
while i <= 5:
    print(i ** 3, end=" ")
    i += 1
```

```
1 8 27 64 125
```

```
# Find the sum of numbers from 1 to 10 using a while loop.
```

```
i = 1
sum = 0
while i <= 10:
    sum += i
    i += 1
print(sum)
```

```
55
```

```
# Find the sum of even numbers from 1 to 20 using a while loop.
```

```
i = 1
sum = 0
while i <= 20:
    if i % 2 == 0:
        sum += i
    i += 1
print(sum)
```

```
110
```

```
# Print the multiplication table of 7 using a while loop.
```

```
i = 1
while i <= 10:
    print(f"7 x {i} = {7 * i}")
    i += 1
```

```
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
```

```
# Print multiplication tables from 1 to 3 using a while loop.
```

```
i = 1
while i <= 3:
    j = 1
    while j <= 10:
        print(f"{i} x {j} = {i * j}")
        j += 1
    i += 1
```

```
1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
3 x 1 = 3
```

```
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30
```

```
# Count how many numbers are there between 1 and 50 using a while loop.
count = 0
```

```
i = 1

while i <= 50:
    count += 1
    i += 1
print(count)
```

```
50
```

```
# Count how many even numbers are there between 1 and 100 using a while loop.
```

```
count = 0

i = 1

while i <= 100:
    if i % 2 == 0:
        count += 1
    i += 1
print(count)
```

```
50
```

```
# Print numbers from 1 to 30, but stop the loop when the number becomes 20.
```

```
i = 1

while i <= 30:
    print(i,end=" ")
    if i == 20:
        break
    i += 1
```

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
```

```
# Print numbers from 1 to 20, but skip printing 10.
```

```
i = 1

while i <= 20:
    if i == 10:
        i += 1
        continue
    print(i,end=" ")
    i += 1
```

```
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20
```

```
# Print numbers from 1 to 5, each on a new line using a while loop.
```

```
i = 1

while i <= 5:
    print(i)
    i += 1
```

```
1
2
3
4
5
```

```
# Print numbers from 1 to 5 in a single line separated by space using a while loop.
```

```
i = 1

while i <= 5:
    print(i,end=" ")
```

```
i += 1
```

```
1 2 3 4 5
```

```
# 20. Print numbers from 5 to 1 in reverse order using a while loop.
```

```
i = 5
```

```
while i > 0:  
    print(i,end=" ")  
    i -= 1
```

```
5 4 3 2 1
```

```
# 21. Print numbers from 1 to 10 along with their squares using a while loop.
```

```
i = 1
```

```
while i <= 10:  
    print(i ** 2,end=" ")  
    i += 1
```

```
1 4 9 16 25 36 49 64 81 100
```

```
# 22. What will be the output of the following code?
```

```
i = 0  
while i < 3:  
    print(i)  
    i += 1
```

```
0  
1  
2
```

```
# 23. What will be the output of the following code?
```

```
i = 1  
  
while i <= 5:  
    print(i)  
    i += 2
```

```
1  
3  
5
```

```
# 24. How many times will the loop execute?
```

```
i = 10  
while i > 0:  
    print(i)  
    i -= 3
```

```
10  
7  
4  
1
```

```
# 25. Identify whether the following loop will terminate or not:
```

```
i = 1  
while i < 5:  
    print(i)  
  
# loop not terminated
```


Streaming output truncated to the last 5000 lines.

