1) Write a python program using while loop to print the following patterns. If required, use 'break', 'continue', 'if', 'else' statements
a) Pattern 1

CODE:

```
i = 1
while i <= 7:
    j = 1
    print ("\n")
    while j <= i:
        if i%2 == 0:
            print ("#", end="")
        else:
            print("*", end="")
        j = j+1
    i = i+1
```

OUTPUT:

```
(base) C:\Users\user\Desktop\python>python 1.7.a.py

*

##

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####

*****

######

*******
(base) C:\Users\user\Desktop\python>
```

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b) Pattern 2

CODE:

```
i=1
while i<=19:
    if i%2 == 0:
        pass
    else:
        print (i)
    i= i+1
```

OUTPUT:

```
C:\Users\user\Desktop\python>C:/Users/user/AppData/Local/Programs/Python/Python3
8-32/python.exe c:/Users/user/Desktop/python/1.7.b.py
1
3
5
7
9
11
13
15
17
19

C:\Users\user\Desktop\python>
```

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c) Pattern 3

CODE:

```
i = 1
while i<=7:
    j=1
    print("\n")
    while j <= i:
        print (i, end="")
        j = j+1

    i = i+1
```

OUTPUT:

```
C:\Users\user\Desktop\python>C:/Users/user/AppData/Local/Programs/Python/Python3
8-32/python.exe c:/Users/user/Desktop/python/1.7.c.py


1

22

333

4444

55555

666666

7777777
C:\Users\user\Desktop\python>
```

d) Pattern 4

CODE:

```
i = 1
while i <= 10:
    j = 1
    print ("\n")
    while j <= i:
        if i%2 == 0:
            print (i, end="")
        else:
            pass
        j=j+1
    i=i+1
```

OUTPUT:

```
C:\Users\user\Desktop\python>C:/Users/user/AppData/Local/Programs/Python/Python38-32/python.exe c:/Users/user/Desktop/python/1.7.d.py


22


4444


666666


88888888


10101010101010101010
C:\Users\user\Desktop\python>
```

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