

1.

```
sum = 0

for i in range(1, 1001):
    if i % 3 == 0 or i % 5 == 0:
        sum=sum+i

print(sum)
```

```
>>> 234168
```

2.

```
a,b=1,2
s=0
while a<=4000000:
    if a%2==0:
        s+=a
        a,b=b,a+b
print(s)
```

Output:

```
>> 4613732
```

6.

```
a=0
b=1
for i in range(0,101):
    a+=i
b=a**2

y=0
for j in range(0,101):
    y+=(j**2)

print(b-y)
```

```
>> 25164150
|
```

7.

```
count=0
num=2
while count<10001:
    prime=True
    if num>1:
        for i in range(2,int(num**0.5)+1):
            if num%i==0:
                prime=False
                break
        if prime:
            count+=1
    num+=1
print(num-1)
```

```
104743
>> |
```

9.

```
for a in range(1, 1000):
    for b in range(a, 1000 - a):
        c = 1000 - a - b
        if a**2 + b**2 == c**2:
            product = a * b * c
            print(product)
            break
```

```
31875000
|
```