

```
1
year=int(input("enter the year"))
val=year%12
if val==0:
    print("monkey")
elif val==1:
    print("rooster")
elif val==2:
    print("dog")
elif val==3:
    print("pig")
elif val==4:
    print("rat")
elif val==5:
    print("ox")
elif val==6:
    print("tiger")
elif val==7:
    print("rabbit")
elif val==8:
    print("dragon")
elif val==9:
    print("snakr")
elif val==10:
    print("horse")
else:
    print("sheep")
```

```
☞ enter the year2020
    rat
```

```
2
dist=int(input("distance to be travelled"))
weight=int(input("enter the weight"))
if dist>=500:
    if weight>=100:
        amount=dist*5
    elif weight>=10 and weight<100:
        amount=dist*6
    else:
        amount=dist*7
else:
    if weight>=100:
        amount=dist*8
    else:
        amount=dist*5
print("total amount = ",amount)
```

```
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```

```

distance to be travelled75
enter the weight3

3
type=["circle","stalls","upperclass"]
payment=["cash","card"]
seat=input("enter the type of seat :: ")
pmode=input("enter the type of payment mode :: ")
if seat in type[0]:
    if pmode in payment[0]:
        discnt=750*10/100
        cost=750-discnt
    elif pmode in payment[1]:
        discnt = 750 * 5 / 100
        cost = 750 - discnt
    else:
        print("error while entering payment mode")
elif seat in type[1]:
    if pmode in payment[0]:
        discnt = 650 * 10 / 100
        cost = 650 - discnt
    elif pmode in payment[1]:
        discnt = 650 * 5 / 100
        cost = 650 - discnt
    else:
        print("error while entering payment mode")
else:
    if pmode in payment[0]:
        discnt = 850 * 10 / 100
        cost = 850 - discnt
    elif pmode in payment[1]:
        discnt = 850 * 5 / 100
        cost = 850 - discnt
    else:
        print("error while entering payment mode")
print("cost of ticket  :: ",cost)

```

```

☞ enter the type of seat :: upper class
   enter the type of payment mode :: cash
   cost of ticket  :: 765.0

```

```

4
water=int(input("enter weight of water in kilograms :: "))
intemp=int(input("enter initial temperature :: "))
fitemp=int(input("enter the final temperature :: "))
energy=water*(fitemp-intemp)*4184
print("energy required :: ",energy,"joules")

```

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```
enter weight of water in kilograms :: 6
```

```
5
```

```
winter=["december","january","february"]
spring=["march","april","may"]
summer=["june","july","august"]
autumn=["september","october","november"]
month=input("enter the month :: ")
if month in winter:
    print("it is a winter season")
elif month in spring:
    print("it is a spring")
elif month in summer:
    print("it is a summer")
else:
    print("it is a autumn")
```

```
↵ enter the month :: august
    it is a summer
```

```
6
```

```
weight=int(input("enter the weight in pounds"))
height=float(input("enter the height in inches"))
w=(weight*0.45359237)
print(w)
h=(height*0.0254)
print(h)
BMI=w/(h**2)
print(BMI)
if BMI<18.5:
    print("underweight")
if BMI>=18.5 and BMI<25.0:
    print("normal")
if BMI>=25.0 and BMI<30.0:
    print("overweight")
if BMI>30.0:
    print("obese")
```

```
↵ enter the weight in pounds50
    enter the height in inches4
    22.6796185
    0.1016
    2197.092436372373
    obese
```

```
7
```

```
num=int(input("enter a number between 100 and 1000 :: "))
rem=0
sum=0
if(num>100 and num<1000):
    while num>0:
        rem=num%10
```

```
    rem = num%10
    sum=sum+rem
    num=num//10
    print(sum)
else:
    print("the number entered is not in the range")
```

☞ enter a number between 100 and 1000 :: 222  
6

```
8
rem=0
for i in range(1,1000):
    n=i
    rev=0
    while n>0:
        rem=n%10
        rev=rev*10+rem
        n=n//10
    if i==rev:
        print(i)
```

☞

1  
2  
3  
4  
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6  
7  
8  
9  
11  
22  
33  
44  
55  
66  
77  
88  
99  
101  
111  
121  
131  
141  
151  
161  
171  
181  
191  
202  
212  
222  
232  
242  
252  
262  
272  
282  
292  
303  
313  
323  
333  
343  
353  
363  
373  
383  
393  
404  
414  
424  
434  
444  
454  
464  
474  
484  
-

494  
505  
515  
525  
535  
545  
555  
565  
575  
585  
595  
606  
616  
626  
636  
646  
656  
666  
676

9

```
rem=0
for i in range(1,1000):
    n=i
    rev=0
    while n>0:
        rem=n%10
        rev=rev+rem**3
        n=n//10
    if i==rev:
        print(i)
```

↳ 1  
153  
370  
371  
407  
  
878

10

```
for i in range(1,100):
    if i%3==0 and i%5==0:
        print("fizz buzz")
    elif i%3==0:
        print("fizz")
    elif i%5==0:
        print("buzz")
```

↳

```

fizz
buzz
fizz
fizz
buzz
fizz
fizz buzz
fizz
buzz
fizz
fizz
buzz
fizz
fizz buzz
fizz
buzz
fizz
fizz
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fizz
fizz buzz
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fizz buzz
fizz
buzz
fizz
fizz
buzz
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fizz buzz
fizz
buzz
fizz

```

```
11
```

```

h=int(input("enter height of the well :: "))
u=int(input("enter the meters spider climb up for each sstep :: "))
d=int(input("enter the meters the spider slips down for each step :: "))
s=0
t=0
p=0
while t<=h:
    t=t+u
    if(t<=h):
        t=t-d
    s=s+1
print(s)

```

```
...
```

```
enter height of the well :: 50  
enter the meters spider climb up for each sstep :: 5  
enter the meters the spider slips down for each step :: 24
```