

```
[1]: hours=35.0
      rate=12.50
      pay=hours*rate
      print(pay)
```

437.5

```
[3]: x=0.6
      x=3.9*x*(1-x)
      print(x)
```

0.9359999999999999

```
[5]: xx=2
      xx=xx+2
      print(xx)
      yy=440*12
      print(yy)
      zz=yy/1000
      print(zz)
      jj=23
      kk=jj%5
      print(kk)
      print(4**3)
```

4

5280

5.28

3

64

```
[7]: x=1+2*3-4/5**6  
print(x)
```

6.999744

```
[13]: nam=input('who are you?')  
print('welcome',nam)
```

who are you? Minahil
welcome Minahil

```
[19]: inp=input('Europe floor?')  
usf=int(inp)+1  
print('US floor',usf)
```

Europe floor? 0
US floor 1

```
[25]: x=input('I am')  
#ALL DONE  
print('Alhamdulillah',x)
```

I am Muslim
Alhamdulillah Muslim

```
[3]: x=5
      if x==5:
          print('equals 5')
      if x>4:
          print('greater than 4')
      if x>=5:
          print('greater than or equals 5')
      if x<6:
          print('less than 6')
      if x<=5:
          print('less than or equals 5')
      if x!=6:
          print('not equal 6')
```

equals 5

greater than 4

greater than or equals 5

less than 6

less than or equals 5

not equal 6

```
[5]: x=5
print('before 5')
if x==5:
    print('is 5')
    print('is still 5')
    print('third 5')
print('afterwards 5')
print('before 6')
if x==6:
    print('is 6')
    print('is still 6')
    print('third 6')
print('afterwards 6')
```

```
before 5
is 5
is still 5
third 5
afterwards 5
before 6
afterwards 6
```

```
[7]: x=5
if x<10:
    print('smaller')
if x>20:
    print('greater')
print('finish')
```

```
smaller
finish
```

```
[1]: x=5
      if x>2:
          print('bigger than 2')
          print('still bigger')
      print('done with 2')
      for i in range(5):
          print(i)
          if i>2:
              print('bigger than 2')
          print('done with i',i)
      print('all done')
```

```
bigger than 2
still bigger
done with 2
0
done with i 0
1
done with i 1
2
done with i 2
3
bigger than 2
done with i 3
4
bigger than 2
done with i 4
all done
```

```
x=42
if x>1:
    print('more than one')
    if x<100:
        print('less than 100')
print ('all done')
```

more than one
less than 100
all done

```
x=4
if x>2:
    print('bigger')
else:
    print('smaller')
print('all done')
```

bigger
all done

```
x=0
if x<2:
    print('small')
elif x<10:
    print('medium')
else:
    print('large')
print('all done')
```

small
all done


```
[9]: x=5
      if x<2:
          print('small')
      elif x<10:
          print('medium')
      else:
          print('large')
      print('all done')
```

medium
all done

```
[11]: x=20
      if x<2:
          print('small')
      elif x<10:
          print('medium')
      else:
          print('large')
      print('all done')
```

large
all done

```
[5]: astr='hello bob'
try:
    istr=int(astr)
except:
    istr=-1
print('first',istr)
astr='123'
try:
    istr=int(astr)
except:
    istr=-1
print('second',istr)
```

```
first -1
second 123
```

```
13]: astr='12'
try:
    print('hello')
    istr=int(astr)
    print('there')
except:
    istr=-1
print('done',istr)
```

```
hello
there
done 12
```



```
astr='bob'
try:
    print('hello')
    istr=int(astr)
    print('there')
except:
    istr=-1
print('done',istr)
```

hello
done -1

```
rawstr=input('enter a number:')
try:
    ival=int(rawstr)
except:
    ival=-1
if ival>0:
    print('nice work')
else:
    print('not a number')
```

enter a number: 43
nice work

```
rawstr=input('enter a number:')
try:
    ival=int(rawstr)
except:
    ival=-1
if ival>0:
    print('nice work')
else:
    print('not a number')
```

enter a number: forty three
not a number

```
x=5
print('hello')
def print_lyrics():
    print('I sleep all night and I work all day')
print('yo')
print_lyrics()
x=x+2
print(x)
```

```
hello
yo
I sleep all night and I work all day
7
```

```
def great(lang):
    if lang=='es':
        print('hola')
    elif lang=='fr':
        print('bonjour')
    else:
        print('hello')
great('en')
great('es')
great('fr')
```

```
hello
hola
bonjour
```

```
[7]: def great(lang):  
    if lang=='es':  
        return'hola'  
    elif lang=='fr':  
        return'bonjour'  
    else:  
        return'hello'  
print(great('en'),'Glenn')  
print(great('es'),'Sally')  
print(great('fr'),'Michael')
```

```
hello Glenn  
hola Sally  
bonjour Michael
```

```
[9]: def add(a,b):  
    added=a+b  
    return added  
x=add(3,5)  
print(x)
```

8

```
while True:
    line=input('>')
    if line=='done':
        break
    print(line)
print('Done!')
```

```
> hello world
hello world
> done
Done!
```

```
while True:
    line=input('>')
    if line[0]=='#':
        continue
    if line=='done':
        break
    print(line)
print('Done!')
```

```
> hello
hello
> # donot print it
> print it
print it
> done
Done!
```

```
for i in [5,4,3,2,1]:  
    print(i)  
print('Blastoff')
```

```
5  
4  
3  
2  
1  
Blastoff
```

```
f= ['Joseph', 'Glenn', 'Herry']  
for friend in f:  
    print('happy new year', friend)  
print('Done')
```

```
happy new year Joseph  
happy new year Glenn  
happy new year Herry  
Done
```

```
: lar_so_far=-1
print('before',lar_so_far)
for num in (9,41,12,3,74,15):
    if num>lar_so_far:
        lar_so_far=num
    print(lar_so_far,num)
print('after',lar_so_far)
```

before -1

9 9

41 41

41 12

41 3

74 74

74 15

after 74

```
: z=0
print('Before',z)
for thing in [9,41,12,3,74,15]:
    z=z+1
    print(z,thing)
print('After',z)
```

Before 0

1 9

2 41

3 12

4 3

5 74

6 15

After 6


```
count=0
sum=0
print('before',count,sum)
for value in[9,41,12,3,74,15]:
    count=count + 1
    sum=sum + value
    print(count,sum,value)
print('after',count,sum,sum/count)
```

```
before 0 0
1 9 9
2 50 41
3 62 12
4 65 3
5 139 74
6 154 15
after 6 154 25.666666666666668
```

```
print('Before')
for value in[9,41,12,3,74,15]:
    if value>20:
        print('large number',value)
print('After')
```

```
Before
large number 41
large number 74
After
```

```

found=False
print('before',found)
for value in[9,41,12,3,74,15]:
    if value==3:
        found=True
    print(found,value)
print('after',found)

```

```

before False
False 9
False 41
False 12
True 3
True 74
True 15
after True

```

```

sm=None
print('before')
for value in[9,41,12,3,74,15]:
    if sm is None:
        sm=value
    elif value<sm:
        sm=value
    print(sm,value)
print('after',sm)

```

```

before
9 9
9 41
9 12
3 3
3 74
3 15
after 3

```