

```
1
blastoff!
0
```

```
[ ]: n=5
while n>0:
    print('lather')
    print('rinse')
print('Dry off!')
```

```
lather
rinse
lather
rinse
lather
rinse
lather
rinse
lather
rinse
lather
rinse
lather
rinse
lather
rinse
lather
rinse
```

r 1:



```
[212]: def greet():  
        return "hello"  
print(greet(),"glenn")  
print(greet(),"Sally")
```

```
hello glenn  
hello Sally
```

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

```
8
```

```
[216]: n=5  
while n>0:  
    print(n)  
    n=n-1  
print('blastoff!')  
print(n)
```

```
5  
4  
3  
2  
1  
blastoff!  
0
```

```
r 1: n=5
```



-2.5

```
[204]: x=5
print('hello')
def print_lyrics():
    print("I'm a lumberjack, and I'm okay")
    print('I sleep all night and I work all day.')
print('yo')
print_lyrics()
x=x+2
print(x)
```



```
hello
yo
I'm a lumberjack, and I'm okay
I sleep all night and I work all day.
7
```

```
[208]: def greet(lang):
        if lang == 'es':
            print('hola')
        elif lang == 'fr':
            print('Bonjour')
        else:
            print('hello')
greet('en')
#hello
greet('es')
#HOLA
```

```
[176]: big=max('hello world')
print(big)
tiny=min('hello world')
print(tiny)
```

w

```
[180]: print(float(99)/100)
i=42
type(i)
```

0.99

```
[180]: int
```

```
[202]: i=print(1+2*float(3)/4-5)
```

-2.5

```
[204]: x=5
print('hello')
def print_lyrics():
    print("I'm a lumberjack, and I'm okay")
    print('I sleep all night and I work all day.')
print('yo')
print_lyrics()
x=x+2
print(x)
```

hello





```
[1]: #enter hours=45
#enter rate=10
x= input('enteter hours:')
y = input('enter rate:')
# print("hello world")
#calculate pay
x=float(x)
if x > 40:
    extra_time = float(x)-40
else:
    extra_time=0
extra_pay=0.5*float(y)*extra_time
pay=float(x)*float(y)+extra_pay
print('pay:',pay)
```

```
enteter hours: 45
enter rate: 10
pay: 475.0
```

```
[3]: print('a')
```

```
a
```

```
[ ]: def thing():
    print('hello')
    print('fun')
thing()
print('Zip')
thing()
```



```
    print('there')
except:
    istr=-1
print('done',istr)
```

```
hello
done -1
```

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

```
enter a number: ty
not a number
```

```
[152]: x=45
rate=10
y=x*rate
print(y)
```

```
450
```

```
[ ]: #enter hours=45
#enter rate=10
```





```
[120]: #cat notry.py
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
```

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





```
[110]: #multi ways
x =0
if x<2:
    print('smaller')
elif x <10:
    print('medium')
elif x<20:
    print('big')
elif x<40:
    print('large')
elif x<100:
    print('huge')
else:
    print('ginormous')
print('all done')
```

```
smaller
all done
```

```
[112]: if x<2:
        print('below 2')
    elif x<20:
        print('below 20')
    elif x<10:
        print('below 10')
    else:
        print('something else')
```

```
below 2
```





```
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
```

```
[96]: 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
```

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





```
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
```

```
[93]: 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
```



smaller
finish

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

equals 5
greater than 4
greater than or equal 5
less than 6
less than or equal to 5
not equal to 6

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



```
[51]: #variable name
      x=20
      #expression evaluation
      x=30+x
      #all done
      print('now answer is',x)#print statement

now answer is 50
```

```
[77]: x=input('hours:')
      y=input('rate')
      pay=int(x)*float(y)
      print('pay is:',pay)
      #y=input('rate:')
      #pay=x*y
```



```
hours: 35
rate 2.75
pay is: 96.25
```

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

smaller
```

```
[31]: print(10/2)
```

```
5.0
```

```
[39]: sval='123'  
      #type(sval)  
      #print(sval+1)  
      ival=int(sval)  
      type(ival)  
      print(ival+1)  
      #nsv='hello bob'  
      #niv=int(nsv)
```



```
124
```

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

```
who are you? eman  
welcome eman
```

```
[47]: inp=input('europe floor?')  
      usf=int(inp)+1  
      print('us floor',usf)
```

```
europe floor? 3  
us floor 4
```

```
[51]: #variable name
```

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

6.999744

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

11.0

```
[17]: ddd=1+4  
print(ddd)  
eee='hello'+'there'  
print(eee)
```

5

hellothere

```
[23]: type(1)  
type('hello')
```

```
[23]: str
```

```
[29]: print(float(99)+100)  
i=42  
type(i)  
f=float(i)  
print(f)
```

199.0

42.0



```
[3]: print(123)
      print(98.6)
      print('hello world')
```



```
123
98.6
hello world
```

```
[7]: x1q3z9ocd = 35.0
      x1q3z9afd = 12.50
      x1q3z9afd = x1q3z9ocd * x1q3z9afd
      print(x1q3z9afd)
      print(x1q3z9ocd)
```

```
437.5
35.0
```

```
[9]: xx=2
      xx=xx+2
      print(xx)
      yy=440*12
      print(yy)
      jj=23
      kk=jj%5
      print(kk)
```

```
4
5280
5
```