In [ ]:
```
#assignment 18
```

In [9]:
```
#Create a function that takes a list of non-negative integers and strings and retur
#without the strings.
def filter_list(a):
    s=[]
    for i in a:
        if(type(i)!=str):
            s.append(i)
    print("number in the list = ",s)
filter_list([1, 2,"hi"])
```

```
number in the list =  [1, 2]
```

In [26]:
```
#question 2
#The &quot;Reverser&quot; takes a string as input and returns that string in revers
#opposite case.
def reverse_string(a):
    s='';
    for i in range(len(a)-1,-1,-1):
        s=s+a[i]
    print(s)
reverse_string("hi hello who are you")
```

```
uoy era ohw olleh ih
```

In [4]:
```
#You can assign variables from lists like this:
#lst = [1, 2, 3, 4, 5, 6]
#first = lst[0]
#middle = lst[1:-1]
#last = lst[-1]
#print(first) → outputs 1
#print(middle) → outputs [2, 3, 4, 5]
#print(last) → outputs 6
def first_middlelist_final(a):
    b=[]
    for i in range(0,len(a)):
        if(i==0):
            print("first = ",a[i])
        elif(i==len(a)-1):
            print("last=",a[i])
        elif(i!=0 and i!=len(a)-1):
            b.append(a[i])
           # print("middle =",b)
    print("middle =",b)
first_middlelist_final([1,2,3,4,5,6,7,8,9,10])
```

```
first =  1
last= 10
middle = [2, 3, 4, 5, 6, 7, 8, 9]
```

In [13]:
```
#Write a function that calculates the factorial of a number recursively.
def fact(a):
    if(a==0 or a==1):
        return 1
    elif(a>1):
        a=a*(a-1)
        print(a,"=",a,"*","(",a,"-",1,")")
    print(a)
fact(5)
```

```
20 = 20 * ( 20 - 1 )
20
```

In [17]:
```python
def fact(a):
    if a == 0 or a == 1:
        return 1
    else:
        result = a * fact(a - 1)
        return result

result = fact(5)
print(result)
```

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120
```

In [18]:
```python
#Question 5
"""Write a function that moves all elements of one type to the end of the list.
Examples
move_to_end([1, 3, 2, 4, 4, 1], 1) ➞ [3, 2, 4, 4, 1, 1]
# Move all the 1s to the end of the array.
move_to_end([7, 8, 9, 1, 2, 3, 4], 9) ➞ [7, 8, 1, 2, 3, 4, 9]
move_to_end([&quot;a&quot;, &quot;a&quot;, &quot;a&quot;, &quot;b&quot;], &quot;a&q
def move_to_end(lst, target):
    # Create two lists: one for elements equal to the target and one for the rest.
    elements_to_move = []
    remaining_elements = []

    for item in lst:
        if item == target:
            elements_to_move.append(item)
        else:
            remaining_elements.append(item)

    # Concatenate the two lists to get the desired order.
    result = remaining_elements + elements_to_move

    return result

# Test cases
print(move_to_end([1, 3, 2, 4, 4, 1], 1))  # ➞ [3, 2, 4, 4, 1, 1]
print(move_to_end([7, 8, 9, 1, 2, 3, 4], 9))  # ➞ [7, 8, 1, 2, 3, 4, 9]
```

```
[3, 2, 4, 4, 1, 1]
[7, 8, 1, 2, 3, 4, 9]
```

In [ ]: