QUESTION:03

Write a program which will add your best dishes and then pop one by one until the set is empty.

INPUT:

```
from math import*
empty_set=set()
a=int(input("how many dishes you want to add: "))
for i in range(0,a):
    name_of_dish=input("enter name of dish: ")
    empty_set.add(name_of_dish)
print("FAVOURITE DISHES")
print(empty_set)
empty_set.pop()
print(empty_set)
empty_set.pop()
print(empty_set)
empty_set.pop()
print(empty_set)
empty_set.pop()
print(empty_set)
```

OUTPUT:

how many dishes you want to add: 4
enter name of dish: biryani
enter name of dish: kabab
enter name of dish: fish
enter name of dish: chinese
FAVOURITE DISHES
{'biryani', 'fish', 'chinese', 'kabab'}
{'fish', 'chinese', 'kabab'}
{'chinese', 'kabab'}
{'kabab'}
set()
Process finished with exit code 0

QUESTION:04

Write a program which will store number of items in a set after each purchasing the items will be pop from the set and compare its price at the end program will give you the total amount of items have been sold. Also find the max amount and minimum amount of items sold.

INPUT

```
set1={"biscuits","snacks","chocolates","waffers"}
dic1={}
list1=[]
for i in range(len(set1)):
    s2=set1.pop()
    print("you are going to provide price of",s2)
    dic1[s2]=input("enter item price")
    print(dic1)
for x in dic1.values():
    list1.append(int(x))
print(list1)
print("the maximum price of an item is",max(list1))
print("the minimum price of an item is",min(list1))
```

OUTPUT:

```
you are going to provide price of snacks
enter item price 30
{'snacks': ' 30'}
you are going to provide price of biscuits
enter item price 50
{'snacks': ' 30', 'biscuits': ' 50'}
you are going to provide price of waffers
enter item price 45
{'snacks': ' 30', 'biscuits': ' 50', 'waffers': ' 45'}
you are going to provide price of chocolates
enter item price 120
{'snacks': ' 30', 'biscuits': ' 50', 'waffers': ' 45', 'chocolates': ' 120'}
[30, 50, 45, 120]
the maximum price of an item is 120
the minimum price of an item is 30
Process finished with exit code 0
```

QUESTION:05

Write a program which will compare two sets, Set A and Set B. Both the sets have some students who love to play one is hockey and other one is cricket. 10 of them play both. Now using sets find how many of them are playing cricket only, if universal set is 40, students who play hockey are 21.

INPUT:

```
from math import*
total_no_of_students_in_class =set(range(0,40))
students_who_play_hockey =set(range(0,21))
students_who_play_hockey_and_cricket_both =set(range(0,10))
students_who_play_cricket =len(total_no_of_students_in_class)-
len((students_who_play_hockey_and_cricket_both))-len((students_who_play_hockey))
print("STUDENTS WHO PLAY CRICKET ARE",(students_who_play_cricket))
```

OUTPUT:

```
STUDENTS WHO PLAY CRICKET ARE 9
Process finished with exit code 0
```

QUESTION:06

A pet store keeps track of the purchases of customers over a four-hour period. The store manager classifies purchases as containing a dog product, a cat product, a fish product, or product for a different kind of pet. She found.

a. 83 purchased a dog product
b. 101 purchased a cat product
c. 22 purchased a fish product
d. 31 purchased a dog and a cat product
e. 8 purchased a dog and a fish product
f. 10 purchased a cat and a fish product
g. 6 purchased a dog, a cat and a fish product
h. 34 purchased a product for a pet other than a dog, cat or a fish.
i. How many purchases were for a dog product only?
ii. How many purchases were for cat product only?
iii. How many purchases for a dog or a fish product?
iv. How many purchases were there in total?

INPUT:

```
from math import*
dog_product=set(range(0,83))
cat_product=set(range(0,101))
fish_product=set(range(0,22))
dog_and_cat_product=set(range(0,31))
dog_and_fish_product=set(range(0,8))
cat_and_fish_product=set(range(0,10))
dog_cat_and_fish_product=set(range(0,6))
other_than_dog_cat_or_fish=set(range(0,34))
dog_product_only=len(dog_product)-len(dog_and_cat_product)-len(dog_and_fish_product)-
len(dog_cat_and_fish_product)
cat_product_only=len(cat_product)-len(dog_and_cat_product)-len(cat_and_fish_product)-
len(dog_cat_and_fish_product)
fish_product_only=len(fish_product)-len(dog_and_fish_product)-len(cat_and_fish_product)-
len(dog_cat_and_fish_product)
dog_or_fish_product=(fish_product_only)+(dog_product_only)+len(dog_and_cat_product)+len(dog_and
_fish_product)+len(cat_and_fish_product)+len(dog_cat_and_fish_product)
print("the purchases for dog product only are",dog_product_only)
print("the purchases for cat product only are",cat_product_only)
print("the purchases of dog or fish product are ",dog_or_fish_product)
total=len(other_than_dog_cat_or_fish)+(dog_or_fish_product)+(cat_product_only)
print("total purchases are ",total)
```

OUTPUT:

```
the purchases for dog product only are 38
the purchases for cat product only are 54
the purchases of dog or fish product are  91
total purchases are  179
Process finished with exit code 0
```