

# QUESTIONS ON TUPLES

Create a tuple as given here:

```
names=('Bobby','Hoshiya','Ekta','Astha','Dave','Lily')
```

(a) write an expression that produces this new tuple:

```
('Ekta','Astha','Dave')
```

(b) write an expression that produces this new tuple:

```
('Bobby')
```

(c) write an expression that produces this new tuple:

```
('Astha','Dave','Lily')
```

Write an expression that adds the string “how are you?” to the front of all the elements of the tuple (“I am fine,thank you”) and creates a new tuple out of it.

Write a program that inputs a tuple and creates a new tuple that contains every third element of the original tuple, starting at index 0. Don't use slice notation. Write code using a for loop.

Write a program to print the alternate elements of a tuple T

Write a program to print every 3 element of a tuple T, raised to power 3.

Write a program that inputs a tuple having words of a string as its elements e.g. ("The", "quick", "brown", "fox") and then translates each text element to Pig Latin.

*[English is translated to Pig Latin by taking the first letter of every word, moving it to the end of the word and adding 'ay'. "The quick brown fox" becomes "Hetay uickqay rownbay oxfay".]*

Write a program that takes a tuple with words in Pig Latin ( as created by previous question) and translates it back to original text.

[Hint. This problem is closely related to previous problem]



Write the code as per following specifications. You may use for loops.

(a) Write a loop that prints each inner tuple pets on a separate line.

(b) Write a loop that prints the second element of each inner tuple in tuple pets on a separate line.

(c) Write a loop that examines tuple pets and computes the number of inner tuples in the tuple.

(d) Write a loop that examines tuple pets and computes the sum of the ages of the animals in the tuple. Ages are the third element of the inner tuples.

Write a program that inputs a tuple T and prints a tuple of the lengths of the subtuples.

For example, if passed tuple T is

`((1,2,),(2,4,6,),(4,),(5,0,5))`

then it should prints `(2,3,1,3)`

Write a program that inputs a tuple with each elements of it as another tuple .It then prints the elements of the tuple in increasing order of their lengths.

Write a program that inputs a number  $n$  (integer) and creates a tuple containing :  $n, 2n, 3n$  and  $4n$