

Please, check <https://www.w3schools.com/python/>, everything is here. From there you can read more about types like tuples and more! Then practice please!!!

Task 1

```
products = input()

array_products = products.split(" ")# string to list, 'here is' => ['here', 'is']
results = ", ".join(array_products) # list to string, adds comma ',' or anything

print(f"I have {results} in my shopping cart.") # string formatter f"lol {value}"
```

Task 2

```
# Set -> pop, discard, remove
a = [1, 2, 3, 4, 5, 6, 7, 8, 9, 9, 9]

s = set(a) # Removes all duplicates automatically

query = int(input()) # from input comes string, if this is number or anything
else than string, please convert it!!! In this case integer => int()

for _ in range(query): # _ is shows that you won't use index value! Can be value.
    q = tuple(input().split()) # tuple or list can be used.Example('pop',)
    if q[0] == "pop": # ('pop',) => first element is 'pop' (q[0]) == 'pop'
        s.pop() # Then activates this line of condition
    elif q[0] == "discard":
        s.discard(int(q[1]))
    elif q[0] == "remove":
        s.remove(int(q[1]))

print(sum(s)) # This function pluses all values in the list.
```

Task 3

```
# Loop
n = int(input())

i = 1 # Initialization of 'i'
while True: # Condition is True, then loop runs infinitely
    if i * i > n: # if 'i * i' more than the given 'n', our condition runs
        break # breaks the loop
    print(i * i, end=" ") # 'end' is used to add any string.In this case used " "
    i += 1 # Don't forget this line! Otherwise your code will run forever.
    # This same as i = i + 1
```

Task 4

```
# Dictionary
s = input()

words = s.split()

counts = {} # Dictionary has 'key' and 'value', initialization
for word in words: # checks each word in the array
    if word not in counts: # If 'word' not in the dictionary, then runs this condition
        counts[word] = 1 # Creates new key with 'word' and value with 1.
    else:
        counts[word] += 1 # Otherwise adds one more count to the value where key is equal to 'word'
```

Task 5

```
# Dictioanry, set
quiz = {
    "1. Which is the currency of Kazakhstan ? ": {"Tenge", "KZT"},
    "2. Name one of the past/present presidents of Kazakhstan: ": {"Nazarbayev", "Tokayev"},
    "3. What year Kazakhstan proclaim independence? ": "1991"
} # Initialization of variable 'quiz'

counter = 0 # Your points! Starts from 0
for question, correct_answers in quiz.items(): # Dictionary has 'key' and 'value'.
    # When used .items() > {"question": "answers"} => [("question", "answers")].
    user_answer = input(question)
    if user_answer in correct_answers: # Checks is there any right answers in correct_answers list
        counter += 1

result_perc = (counter / len(quiz)) * 100 # Final results with calculations

if result_perc > 70:
    print(f"Congrats, you won with {result_perc:.2f}% correctness") # :.2f => ':.' - used for float numbers, to get last numbers in
    # this case. ':.2f' says, we need to take last 2 digits after '.' decimal.
    # You can change it into ':.3f' => gets last 3 digits.
    # Example: ':.2f' > 85.6723 => 85.67 or 85 => 85.00 and so on.
else:
    print(f"You lost! You got only {result_perc:.2f}% correctness")
```

Task 6

```
my_list = [(1,2), (2,3), (3,7), (4,16)] # list of tuples

results = [] # collects all the results
for num1, num2 in my_list: # can be used tuple and list most of the time for this
    type of operation.
        results.append(num1 + num2) # array method to add value to the list.

print(results)
```