1. If A is false and B is true, then which of the following expressions is false?
   * not A and B or B Clearly circle only one answer.
   * A or A and B
   * not (A and B or A)
   * All of the above
2. The expression (**math.trunc**(1.5) - 15%3 ) < 2 is
   * Invalid Clearly circle only one answer.
   * True
   * False
   * None of the above
3. What is the R value after the code below executes, if Q=5 and T=2?

if (Q>T or Q>8) and (T<=4):

R=Q\*T

if (T==0 or Q==2 or Q>T) and (T>-5):

R=4

print(R)

10

1. What is the C value after the code below executes, if B=60 and C=30?

if (B/C) >=2:

C=3

elif (B/C) ==2:

C=11

C = 3

1. Which command is usually used to repeat a set of commands an unknown number of times?
   * while Clearly circle only one answer.
   * for
   * if
2. Which of the following for statement will run 10 times :
   * for 1:10: Clearly circle all correct answers.
   * for i in range(21,31):
   * for i in range(1,10):
   * for i in range(11,1,-1):
3. which of the following loops will not run forever :
   * while 1: Clearly circle all correct answers.
   * for i in ‘orange’:
   * for i in x:

x.append(1)

* + while -3:
  + while 0:

1. What would appear on the screen after the execution of the following script:

|  |  |
| --- | --- |
| i = 1  for x in range( 1,4) :  i = i \* x  print(‘%d ‘ %x)  1  2  3 |  |

9. Write a program that reads a number N from the user and prints the following multiplication table:

1

2 4

3 6 9

4 8 12 16

5 10 15 20 25

10. A grocery store launched its delivery service from 8AM to 9 PM. Number of items changes everyday and is updated by the stock clerks.

Main departments are:

Meat - Seafood - Milk - Bread - Oil

1. Take from the stock clerk the available number in each department and the new prices.
2. You can take orders from customers till the end of all items or end of working hours and print for each the total they should pay.
3. make a promo code with 30% discount ‘123456’ as anyone tells it takes this discount but only on Milk
4. make a report for the grocery manager showing ratios of sold products from each department to know what they should buy more next time.

ratio = (number of sold items from a department)/total number of sold items

1. print the ratios in the report in an ascending order.

Example:

how many available items in the following departments?

Meat - Seafood - Milk - Bread - Oil>? 2 2 2 2 2

what are the prices of the available items in the following departments?

Meat - Seafood - Milk - Bread - Oil>? 1 2 3 4 5

how many you want from each of the following:

Meat - Seafood - Milk - Bread - Oil>? 1 0 1 1 2

please enter promo if you have: >? 123456

Dear prospective customer, the total is: 17.1 pounds

is the store still open? >? yes

how many you want from each of the following:

Meat - Seafood - Milk - Bread - Oil>? 1 1 1 1 1

please enter promo if you have: >?

we are sorry there's no available Oil

Dear prospective customer, the total is: 10.0 pounds

is the store still open? >? yes

how many you want from each of the following:

Meat - Seafood - Milk - Bread - Oil>? 0 2 0 0 0

please enter promo if you have: >?

there are only 1 available of Seafood we put it in your cart

Dear prospective customer, the total is: 2.0 pounds

is the store still open? >? no

We sold today:

20.00 % Meat

20.00 % Seafood

20.00 % Milk

20.00 % Bread

20.00 % Oil