

Q Count number of occurrences

Prime number

sum of n even number

inverted pattern

Binary to decimal

leap year

Q. Procedure

declare two variables a and b

set a to non-zero value

set b to 0

try block:

attempt to divide a by b and store the result  
in another variable result

exception:

Catch the Arithmetic exception

display an error message

end try-catch block

Q. Array Bound of exception

Procedure

Initialize arr[]: {5, 6, 7, 8, 9}

set a variable index to a value greater than

the array's length

try block:

Attempt to access the array element at index

exception

catch `ArrayIndexOutOfBoundsException`

display error message

end try-catch block

end procedure

6) Procedure

define `NegativeValuesException` extending `exception`

Constructor:

Send message to parent class

main:

define `checkPositive(int number)`

if `number < 0`

throw `NegativeValueException`

try:

call `checkPositive(number)`

if no exception is thrown "Number is valid"

catch `NegativeValueException`:

display the error

7) declare

`int a = 3`

`float b = 4.56`

`double c = 5.6473467`

char d : 'a'

bool e : true

display the data types separately

Q) Procedure:

Initialize variables

key : make : model year

Constructor

input: make , model , year

Set class variable to input variable

Method PrintCar Details

Output: display make model and year of the car

main:

Create an object of Car with make, model and year

call printDetails and display the details

Q

Create a matrix A with dimension  $1 \times 9$

Create Matrix B with dimension  $1 \times 9$

for i in range from 0 to 8

set matrix  $A[0][i]$  to  $i+1$

for i in range from 9 to 1

for i from 0 to 7

for j from 0 to 8

Print matrix A[a][i]

for i from 9 to 1

Print matrix B[a][i]

Q)

Procedure

Initialize accountnumber, balance

Constructor

input accountnumber, initial balance set

account number and balance to input value

Method deposit:

input amount

if amount >= balance

balance -= amount

else

display insufficient balance

main:

create object of Bank Account with account number and initial balance

display the balance

Q) declare the Scanner class to get input  
get the operator and operand

if operator = sum

display the sum

else if operator = difference

return the difference between the numbers

else if operator = +

return the product

else if operator = /

return the quotient

display the result.

Q) Procedure

declare Scanner class

initialize base = 4

exponent = 3

using the intait function

assign pow: Math.pow (base, exponent)

display the result

end procedure

Procedure:

assign  $n = \text{length}$

expected sum =  $n(n+1)/2$

actual - sum = sum (numbers)

missing number = expected - sum - actual - sum

return missing number

end procedure