Question

A programmer has been asked to write a program that receives two numbers from the user, with the first being the number of sweets in a giant sweet box, and the second being the number of children at a party. The program will then output how many sweets each child will get, plus how many sweets are left over.

Write an algorithm in pseudocode which completes the above task.

Answer

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There are always different ways to solve a problem. This algorithm is just an example. What is important is that the logic is correct!

LOGIC:

-Ask the user to enter the number of sweets and store it in a variable
-Cast the input to an integer data type
-Ask the user to enter the number of children and store it in a variable
-Cast the input to an integer data type
-Divide the first number by the second, using the 'Quotient' division operator DIV, in order to work out each child's share.
-Divide the first number by the second, using the 'Modulo' division operator MOD, in order to work out if a remainder is produced.
-Output the results of each division, along with a suitable message.

EXAMPLE ALGORITHM:

```
num1 = input("Enter a number: ")
num1 = int(num1)
num2 = input("Enter another number: ")
num2 = int(num2)
share = num1 DIV num2
remainder = num1 MOD num2
print("Each child gets " + str(share) + "number of sweets, with "
str(remainder) + "left over")
```