

Assignment Question on Overloading and Overriding in C#

Q1: Write a C# program to create a class **MathOperations** with overloaded methods `Multiply`. The first method should multiply two integers, the second should multiply three integers, and the third should multiply two doubles.

Q2: Create a base class **Animal** with a **virtual method MakeSound**. Derive classes **Dog** and **Cat** from **Animal** and **override the MakeSound method** to print different sounds for each animal.

Q3: Suppose you have a base class **Shape** with a **virtual method Area**. Create two derived classes **Rectangle** and **Circle**. Implement the **Area** method in both derived classes and overload it in the **Rectangle** class to allow calculating the area with different sets of parameters.