QUIZ:
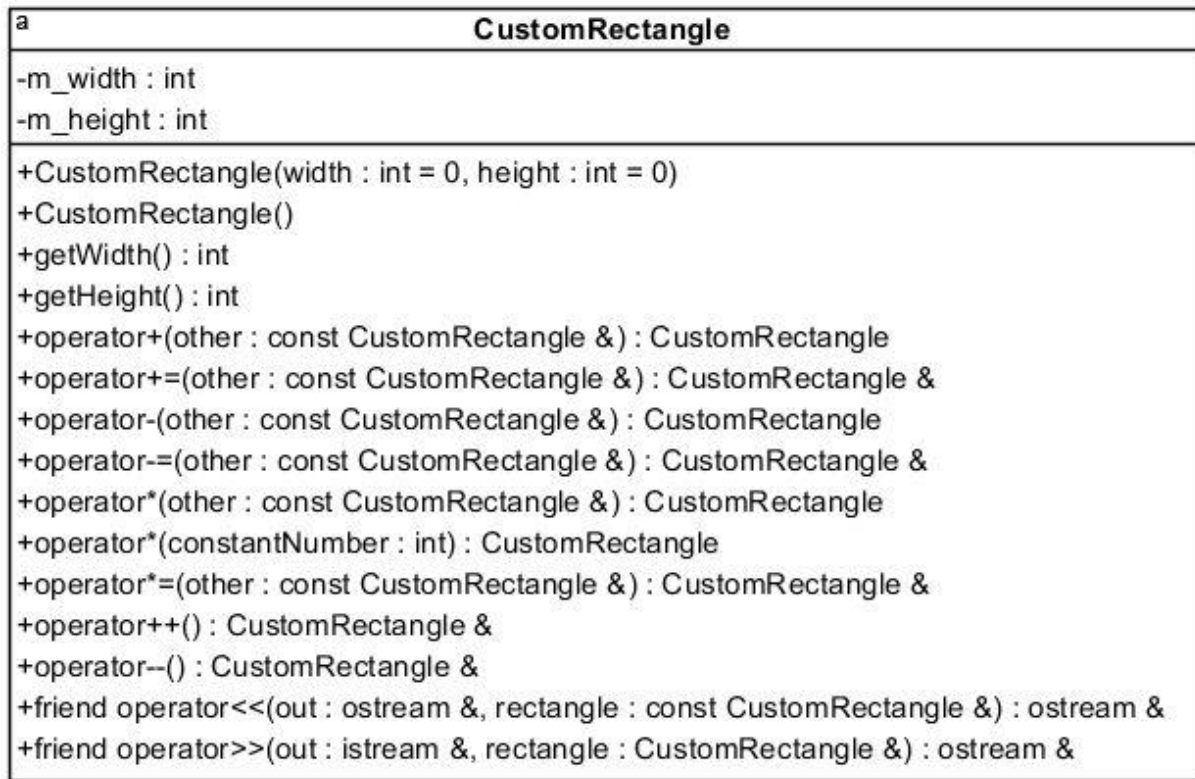
Write a CustomRectangle class and operator overloading functions by using given UML Diagram and following explanations.

a	CustomRectangle
-m_width : int -m_height : int	
+CustomRectangle(width : int = 0, height : int = 0) +CustomRectangle() +getWidth() : int +getHeight() : int +operator+(other : const CustomRectangle &) : CustomRectangle +operator+=(other : const CustomRectangle &) : CustomRectangle & +operator-(other : const CustomRectangle &) : CustomRectangle +operator-=(other : const CustomRectangle &) : CustomRectangle & +operator*(other : const CustomRectangle &) : CustomRectangle +operator*(constantNumber : int) : CustomRectangle +operator*=(other : const CustomRectangle &) : CustomRectangle & +operator++() : CustomRectangle & +operator--() : CustomRectangle & +friend operator<<(out : ostream &, rectangle : const CustomRectangle &) : ostream & +friend operator>>(out : istream &, rectangle : CustomRectangle &) : ostream &	

Write a test procedure to test all the functions.

Problem-Solving Tips

1- Plus, minus and multiplication operations are performed by applying the corresponding operations on all attributes of the operands.
2- Increment and decrement operations are performed by incrementing and decrementing the width and height attributes.
3- Output stream and input stream operations are performed on the all attributes of the rectangle.