Lab Report 20

# Problem

We need to create a program that will allow the user to enter a width and an offset for a diamond and have the computer draw the diamond.

# Proposed Solution

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| **Diamond** |
| **-**width : int |
| +getWidth : int  +setWidth : void  +drawHere : void  +drawTopV : void  +drawBottomV : void  +skipSpaces : void |

|  |
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| **ShapeBasics** |
| -offset |
| +getOffset : int  +setOffset : void  +drawAt : void  +drawHere : void |

# Tests and Results

I tested the value with plenty of valid values and invalid values and the code works perfectly.

# Problems Encountered

The draw bottom class took a lot of trial and error but I was able to fix it.

# Conclusions and Discussion

Another way this lab could be done is by swapping the middle \* to the drawTopV rather than the drawBottomV method.

# Additional Questions

1. Draw a UML class diagram to represent the ShapeBasics and Diamond classes.

2. How many classes can any class inherit?  Can a class implement more than 1 interface? Classes can inherit one class. However, a class can implement multiple interfaces.