Diamonds are a Girl's Best Friend

http://www.fablicious.com/immortal-marilyn/marilyn-diamonds-are-a-girls-best-friend/

Objectives:

- Gain experience with loops
- Gain experience with replacing the default new line character in the print statement

Problem Statement:

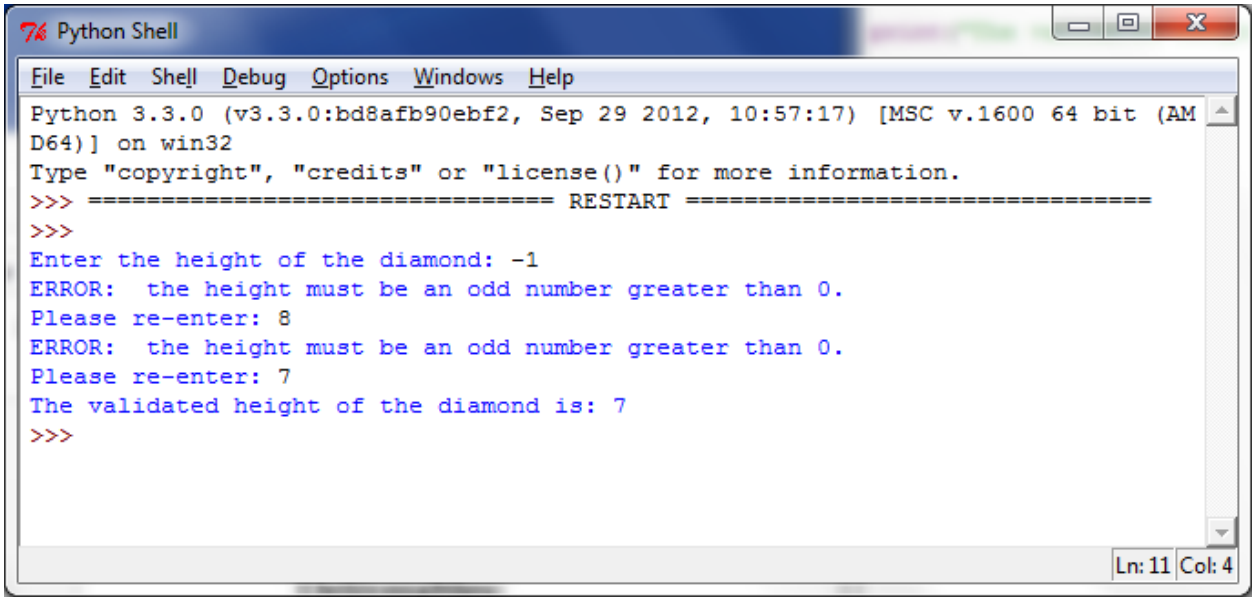
Write a program that will draw a diamond-shaped picture. Prompt the user to input the number of lines to be drawn. ***Note: in order to form the diamond shape, the number of lines must be an odd number in this program.***

You program needs to check whether the number of lines is valid. If it is not valid, you need to prompt the user to give you a new number and validate it as well.

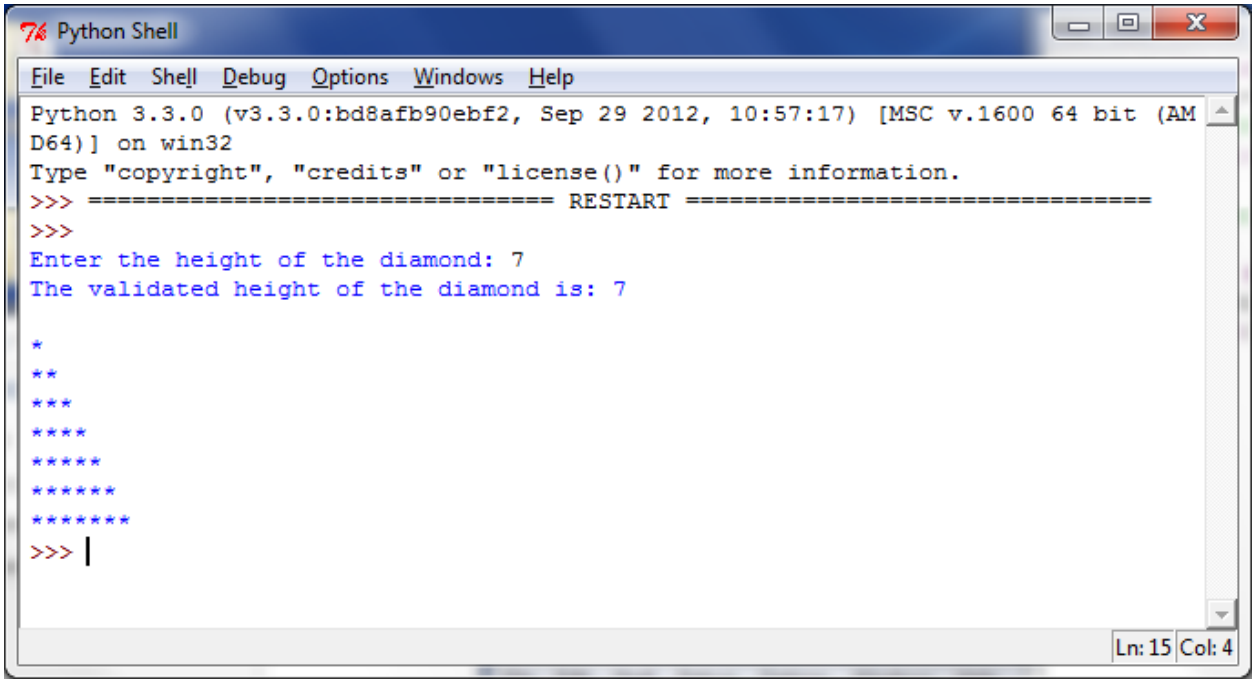
You may use output statements that print either a single asterisk (*) or a single space. If you forget to replace the default new line character that is automatically added to Python print statements, everything will be printed in a long vertical line on the screen. You will definitely need to use loops, but it is your choice whether to use a `while` loop or a `for` loop.

Instructions:

Stage 1:
Start by validating the height (number of lines) of the diamond.

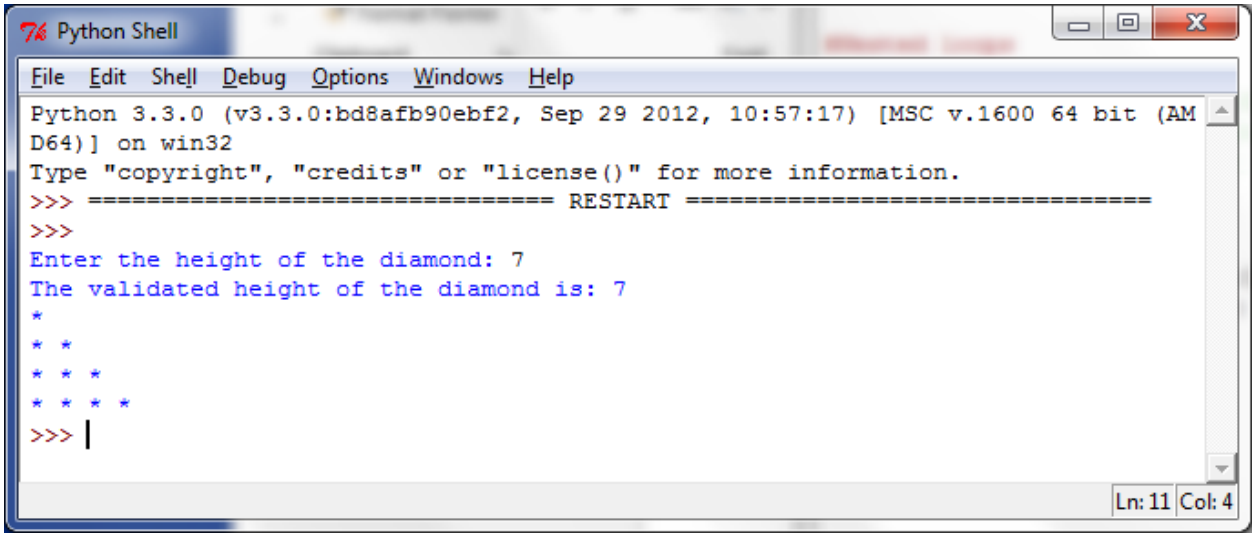


Stage 2:
With a validated height, you can then start to work on printing the diamond. Start by printing 1 asterisk on the first line, 2 on the second line, etc. until the last line has the same number of diamonds as the height.

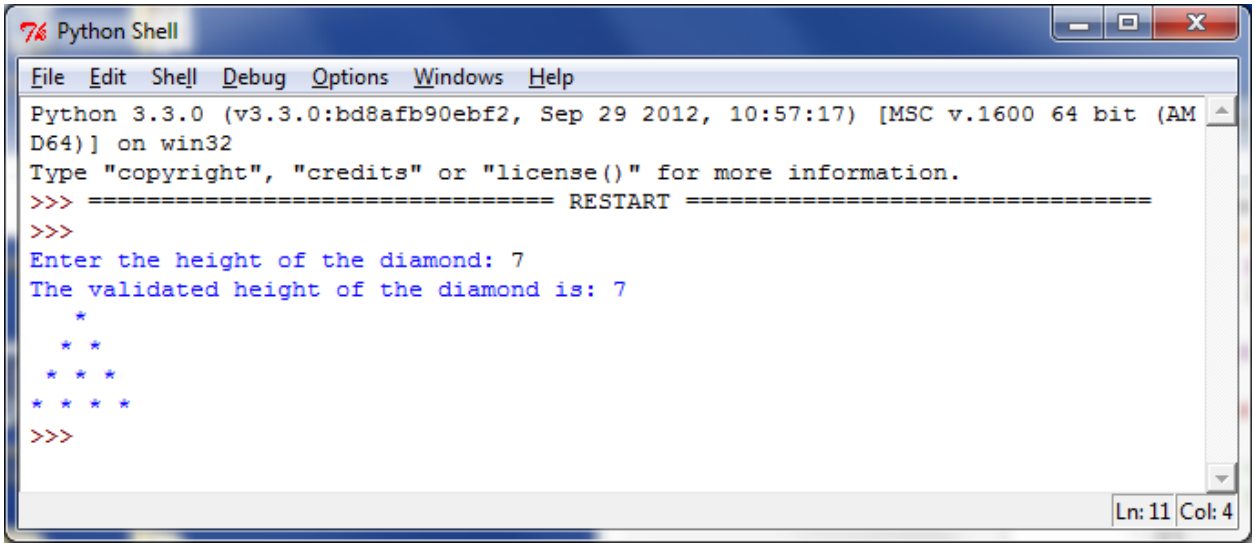


Stage 3:

Now print half + 1 of the rows and put a space between each of the asterisks.

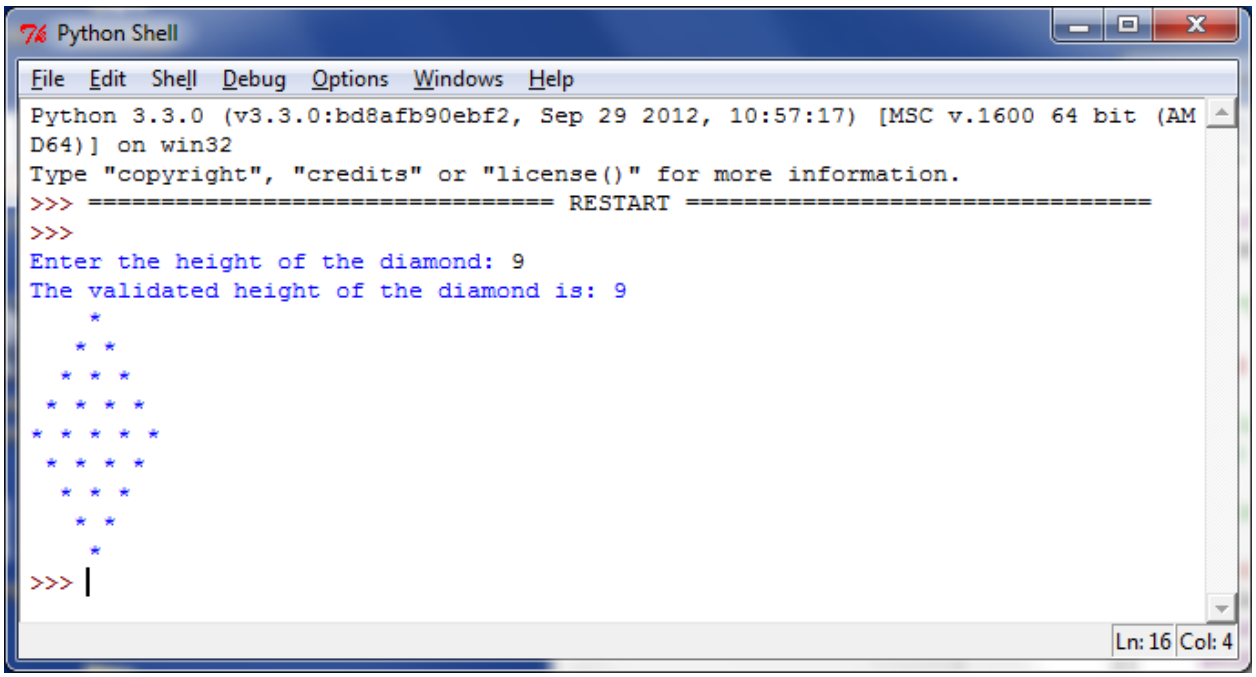


Stage 4:
Now print the necessary spaces on each line to shift the point to the middle.



Stage 5:

Finally, add the bottom half of the diamond that is ***almost*** a mirror image of the top (one line less than the top).



Requirements:

- Your program should use the following comment block at the very beginning of your program.

```
/*********************************************************
* Name:  Lisa Henderson       Date Assigned: Fill in     *
* Course:  CSE 1284 Sec ?     Date Due:  Fill in         *
*                                                        *
* File name:  Fill in                                    *
*                                                        *
* Program Description:  Brief description of what the    *
* program does.                                          *
*********************************************************/
```

- Your program should made good use of whitespace.
- Include appropriate comments.
- Prompt the user for the height of the diamond (number of lines).

Deliverables:

For this homework assignment, all that should be submitted is your source code.

Grading:

Task	Points
Stage 1 only (validation)	65 points
Complete through Stage 2 (prints right triangle of asterisks)	75 points
Complete through Stage 3 (prints half of right triangle with spaces between)	80 points
Complete through Stage 4 (prints top half of diamond)	90 points
Complete through Stage 5 (full diamond)	100 points