**Asterisk Diamond Algorithm  *Eden Amiga***

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Description automatically generated

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Description automatically generatedThe algorithm starts of by taking input from the user. The input is stored inside an integer variable. The first block of code checks if the input is either even, odd or negative. Illegal inputs cause the program to return from the function (e.g., negative and even numbers).

It then initializes *spaces* with input divided by 2 (since the first line starts with 2 if input is 5 and so forth). The *stars* is initialized to negative one to avoid adding 2 extra on the last iteration of the *if* statement (first condition) resulting in an extra stars in the n+1 iteration (i.e., the first iteration A picture containing text, screenshot, monitor, computer

Description automatically generatedof the else statement).

The *if* statement iterates when the index is between 0 and half the input number. This allows for the algorithm to differentiate between the two creationary parts (top and bottom half of rhombus). Each iteration increases or decreases the stars by 2 (odd number of asterisks) and increases or decreases the number of spaces by 1. When *i* becomes more than half the input, the second half is created. Each iteration of the inner *for* loops creates either spaces or asterisks.