# Alternate Project 1: Magic Square Created by Brian Weinfeld Using Python, you will use variables, input, and casting to create a Magic Square. ## Overview Pick a number from 21-65. __42__, you say? OK! Check this out! ```python 22 01 12 07 11 08 21 02 05 10 03 24 04 23 06 09 ``` If you add up all the numbers in each row, they total 42. (22 + 1 + 12 + 7 = 11 + 8 + 21 + 2 = 42) If you add up all the numbers in each column, they total 42. (22 + 11 + 5 + 4 = 1 + 8 + 10 + 23 = 42) If you add up all the numbers in each diagonal, they total 42. (22 + 8 + 3 + 9 = 7 + 21 + 10 + 4 = 42) It is the same for each of the four corners, and each 2x2 block as well. (22 + 4 + 9 + 7 = 42) This is called a __Magic Square__ and for this project, you are going to create a program that lets users select a number and create a magic square from that number. ## Details ### Behavior ```python Welcome to Magic Square Enter a number from 21 to 65: 42 You have entered 42 Here is your Magic Square: 22 01 12 07 11 08 21 02 05 10 03 24 04 23 06 09 ``` ### Implementation Details Believe it or not, Magic Squares are not difficult to make! Watch the following video to see how to make a Magic Square for any given number: [![Magic 8 Ball](https://img.youtube.com/vi/aQxCnmhqZko/0.jpg)](https://www.youtube.com/watch?v=aQxCnmhqZko) ### Challenge This section contains additional components you can add to the project. These should only be attempted __after__ the project has been completed. * What happens if the user enters a number outside the range of 21-65? Try to check for this and print an error message! * What happens if the user doesn't enter a number at all and enters a word instead? Try to check for this and print an error message! * Build a Magic Square with a small number like 22. The Magic Square isn't aligned properly and hard to read. Try to fix this!