

Basic Data Types Challenge 5:

Multiplication/Exponent Table App

Description:

You are responsible for writing a program that displays a multiplication table and exponentiation table for any given number. Each table should show mathematical results for operations performed with the given number and integers from 1 to 9. The program will then print a series of messages to the user describing how cool mathematics truly is.

Step By Step Guide:

- Print a welcome message.
- Get user input for their name.
- Get user input for their number.
- Define a variable called message that will hold the following string:
 - `name.title() + ", Math is cool!"`
- Create a multiplication table that calculates the product of the number entered and the numbers 1 through 9.
- Create an exponent table that calculates the exponential power of the number entered raised to the power 1 through 9.
- Each result should be rounded to 4 decimals.
- Each line in your table can be created in a single print statement.
 - I would recommend getting one line to work correctly.
 - Copy and paste the line the correct number of times, changing values accordingly for each subsequent line.
 - We will later learn a more efficient way to accomplish this task.
- Each table should have its own heading as below.
- Each mathematical result should be formatted as below.
- Lastly, print a series of statements using the various string methods introduced.
 - Print msg
 - Print msg in lower case
 - Print msg in title case
 - Print msg in upper case
- Use at least 2 comments to describe sections of your code.
- "Chunk" your code so that is readable.
- Use appropriate and informative variable names.
- Format your output as below.

Example Output

Welcome to the Multiplication/Exponent Table App

What is your name: mike

What number would you like to work with: 2.35

Multiplication Table For 2.35

$$1.0 * 2.35 = 2.35$$

$$2.0 * 2.35 = 4.7$$

$$3.0 * 2.35 = 7.05$$

$$4.0 * 2.35 = 9.4$$

$$5.0 * 2.35 = 11.75$$

$$6.0 * 2.35 = 14.1$$

$$7.0 * 2.35 = 16.45$$

$$8.0 * 2.35 = 18.8$$

$$9.0 * 2.35 = 21.15$$

Exponent Table For 2.35

$$2.35 ** 1 = 2.35$$

$$2.35 ** 2 = 5.5225$$

$$2.35 ** 3 = 12.9779$$

$$2.35 ** 4 = 30.498$$

$$2.35 ** 5 = 71.6703$$

$$2.35 ** 6 = 168.4252$$

$$2.35 ** 7 = 395.7993$$

$$2.35 ** 8 = 930.1284$$

$$2.35 ** 9 = 2185.8017$$

Mike Math is cool!

mike math is cool!

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MIKE MATH IS COOL!