

Coding Lesson 2 - Data Types and Calculations

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| **Mild - perfect for beginners** |

Starter file - <https://scratch.mit.edu/projects/343081873/>

1. Ask the user to type in a number and multiply it by 100.
2. Display the answer and then say what just happened, say **“That was your number times 100.”**
3. Use the random block to display 2 random numbers between 1 and 100.
4. Display “**That was a random number between 1 and 100**”
5. Ask the user to input two numbers and display the sum.
6. Display “**That was your first number + your second number**”.

Finished example: <https://scratch.mit.edu/projects/333833638/>

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| **Medium - expanding your skills** |

Starter file - <https://scratch.mit.edu/projects/343089520/>

1. Ask the user to input three numbers and display the sum.
2. Display “**That was the sum of all of your numbers**.”
3. Use the random block to make the sprite jump to a random (x, y) location on the screen.
4. Display “I just moved to a random position using my x and y coordinates.”
   1. What is the smallest value for x? For y? – **The smallest value for x is -240 while the smallest y is -180.**
5. Find the average of: 97, 84, and 91.
6. Display “That was the average of 97 + 84 + 91” - **90.67**
7. Ask the user to enter a number and display the square root.
8. Display “That was the square root of your number!”

Finished example: <https://scratch.mit.edu/projects/333834922/>

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| **Spicy - looking for a challenge?** |

Starter file - <https://scratch.mit.edu/projects/343098760/>

1. Using a loop, ask the user to enter 7 numbers and find the average.
2. Display “**That was the average of your seven numbers!**”
3. Write a program to ask the user for two numbers, then show the quotient and the remainder. Bonus points if the quotient does not have a decimal.
4. Display “**That was the quotient and the remainder of your two numbers**.”
5. Use the random block to make two numbers between 1 and 12. Ask the user to enter the product.
6. If the answer is correct it should display “**Goodjob! The product is : “Answer””.**
7. If the answer is incorrect it should say, “**Sorry try again!”**, and keep repeating the question until the answer is correct.

Finished Example: <https://scratch.mit.edu/projects/335120545/>

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