Exercises about variables

- Solve them in Visual Studio or use https://dotnetfiddle.net/.
- Use one solution, with multiple projects in it.

Exercise 01.01

- Define a variable with a good name of type "byte".
- Initialise this variable with a number.
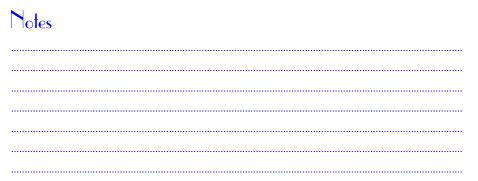- Show the value of the variable in the console.

Exercise 01.02

- Build on the result of 01.01 or restart.
- Add now 17 to the variable (value becomes + 17).
- Show the current value of the variable in the console.

Exercise 01.03

- Build on the result of 01.02 or restart.
- Add to the variable the value of itself.
- Show the current value of the variable in the console.

Exercise 01.04

- Build on the result of 01.03 or restart.
- Suppose you had given the variable the number 200 as initial value.
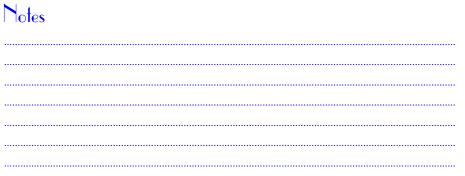- What would be the result of exercise 01.04?

Notes

Exercise 01.05

- Build on the result of 01.03 or restart.
- Define a new variable with another good name of type "string".
- Give the variable a certain text value.
- Show the value of the variable in the console.

Exercise 01.06

- Build on the result of 01.05 or restart.
- You have a variable of the type string.
- You have a variable of the type byte.
- Try to add them and show the result on the console.
- What happens?

Exercise 01.07

- Start a new project.
- Define two variables of the type "bool".
- Give them a good name.
- One variable gets the value "True".
- The other variable gets the value "False".
- Show both values in the same line to the console in this format:
  - First: True – Second: False
- If you change the values of the boolean, the console text shown must be correct.
  - An example
    - First: False – Second: False

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Exercise 01.08

- Build on the result of 01.07 or restart.
- You have 2 boolean variables with its values.
- Show the value of the 2 boolean used with operator "Or".

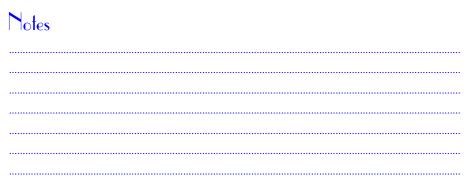## Exercise 01.09

- Build on the result of 01.08 or restart.
- You have 2 boolean variables with its values.
- Show the value of the 2 boolean used with operator "And".

Exercise 01.10

- Build on the result of 01.08 or restart.
- You have 2 boolean variables with its values.
- Show the value of the negation of your first boolean.

Exercise 01.11

- Start a new project.
- Define two variables of the type "double".
- Assign a decimal value to both.
- Add them together and show result.
- Subtract one from another and show result.
- Multiply them together and show result.
- Divide them and show result.

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Exercise 01.12

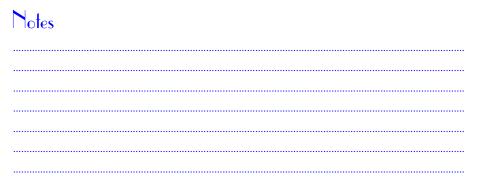- Same exercise of above, but you give them both the value 0.
- What happens?

Exercise 01.13

- Start a new project.
- Define two variables of the type "float".
- Assign a decimal value to both.
- Add them together and show result.
- Subtract one from another and show result.
- Multiply them together and show result.
- Divide them and show result.

Exercise 01.14

- Start a new project.
- Define two variables of the type "int".
- Assign a value to both.
- Add them together and show result.
- Subtract one from another and show result.
- Multiply them together and show result.
- Divide them and show result.
    - Do you see the correct result?
    - Also when you divide 1 by 2?

Exercise 01.15

- Start a new project.
- Define a variable of the type "decimal".

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- Give the variable a value with a lot of decimals.
- Show this to the console.
- Do you see the correct value?

Exercise 01.16

- Start a new project.
- Define a variable of the type "double".
- Give the variable a value with a lot of decimals.
- Show this to the console.
- Do you see the correct value?

Exercise 01.17

- Start a new project.
- Try to define 2 variables with the same name.
- What happens?

Exercise 01.18

- Start a new project.
- Define 3 variables with a good name of the type "int".
- Ask on the screen to fill in those 3 numbers (e.g., 10 – 20 – 30).
- Show the biggest number to the console.
- Show the smallest number to the console.
- Show text "there are equals" if 2 or 3 numbers do have the same value.
- When not, show the text "They are all different".