How do I convert data into scientific notation using SPSS?

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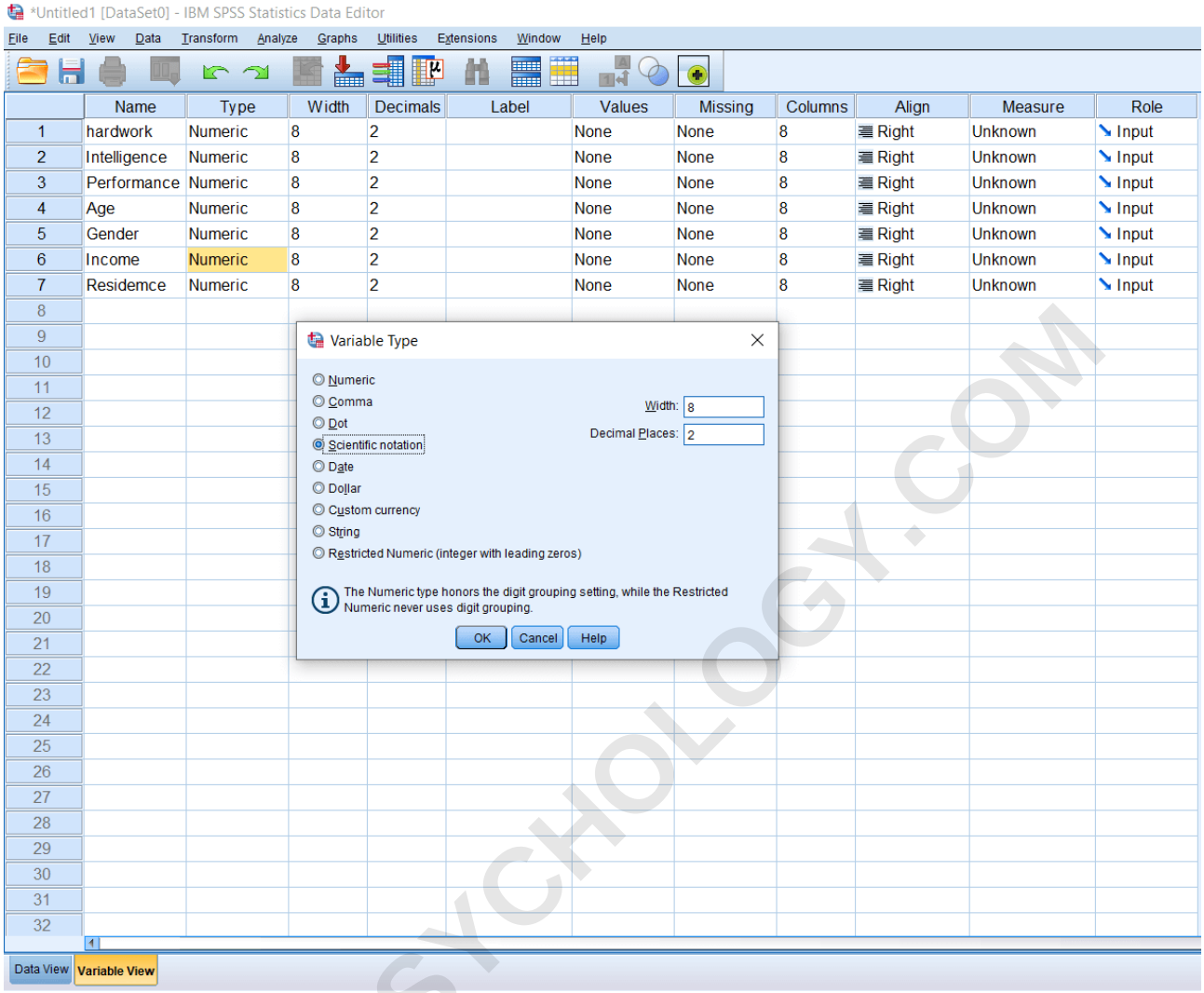
Converting data into scientific notation in SPSS involves following a few simple steps. First, open the data file in SPSS and select the variable you want to convert. Then, go to the "Transform" menu and select "Compute Variable". In the dialogue box that appears, enter a new name for the converted variable and choose "Scientific Notation" as the "Target Variable Type". Next, select the original variable in the "Numeric Expression" box and click "OK". The data will now be converted into scientific notation. Finally, you can check the results by going to "View" and selecting "Value Labels". This will display the scientific notation for your data.

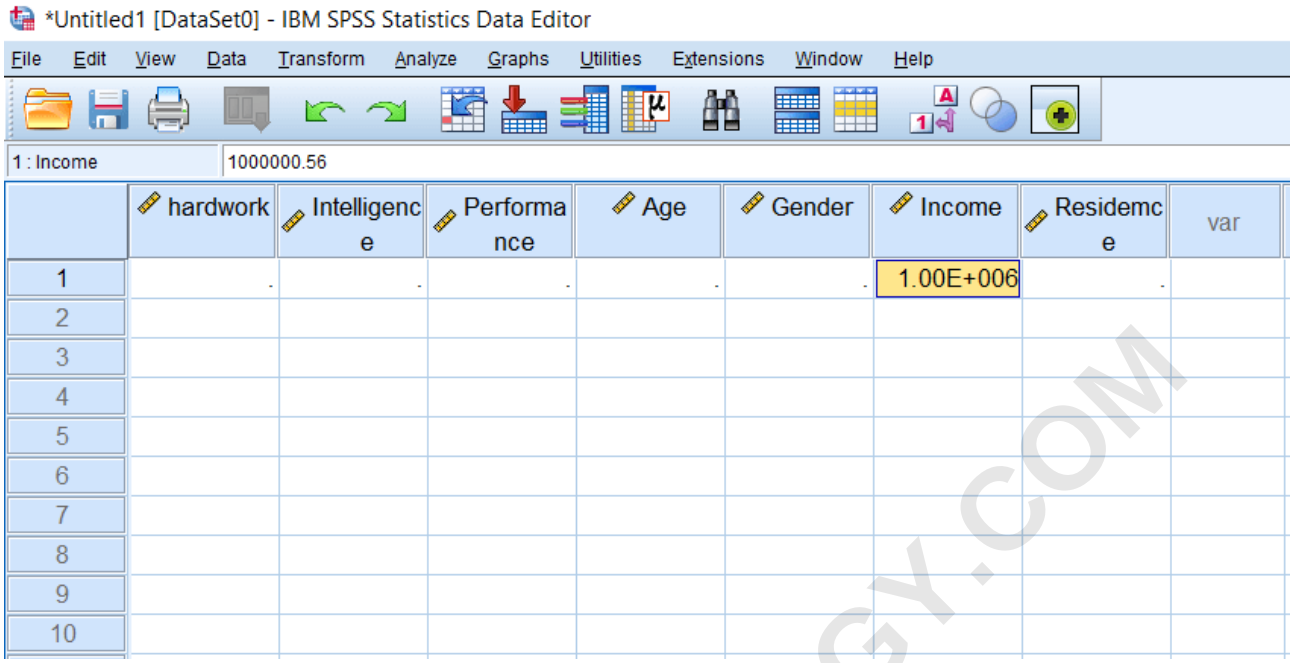
Scientific Notation in SPSS

In this section, we are going to learn the scientific notation variable type. Scientific notation variable types are the variable types that are used generally by the physical scientist, i.e., a person working in the area of chemistry or biology. We must have seen measuring the property in terms of 10-6 or 10-8 or 106 or 108, and that kind of notation can be written in SPSS. For example, instead of writing one thousand (1000), we can write 103.

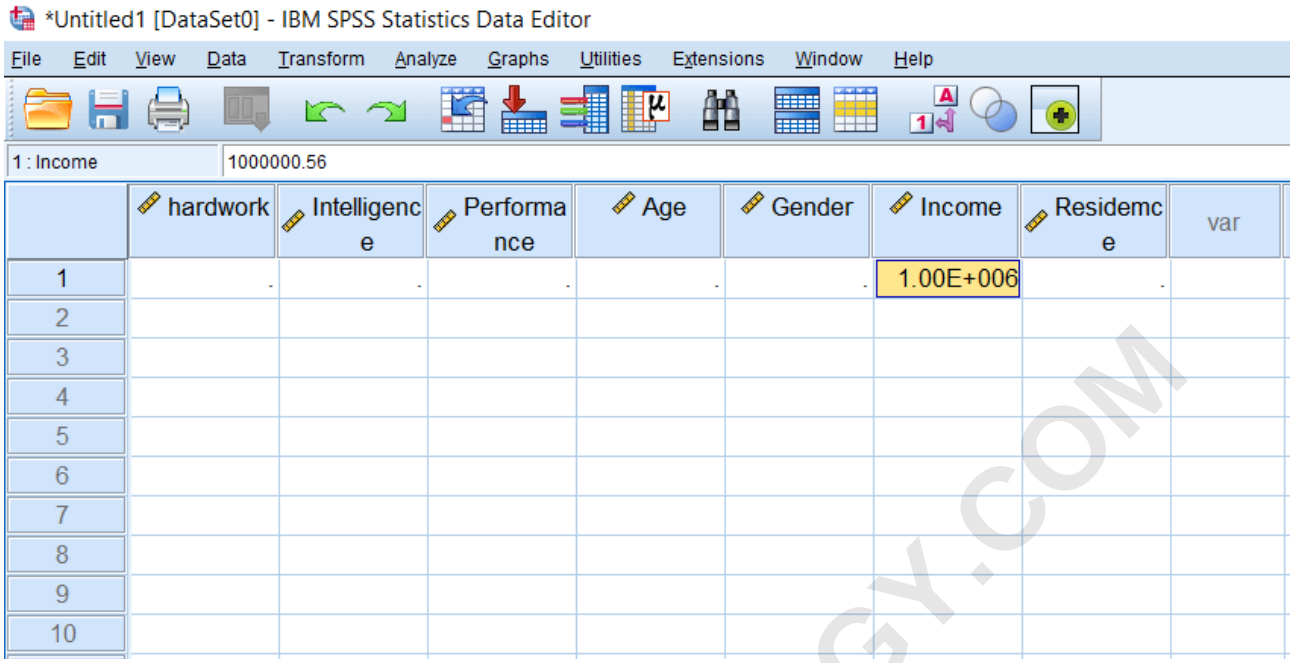
Now let's see how we do that. For this, we are going to take an income variable. We will go to Numeric type of income variable then click on Scientific notation and then press ok like this:



We will record the income of a subject as 106. That means we are having 000000 after 1. So if this income is in thousands, we can say it's 1 million. So the following image shows that 1 million will be written as 1.00E+006 in SPSS.

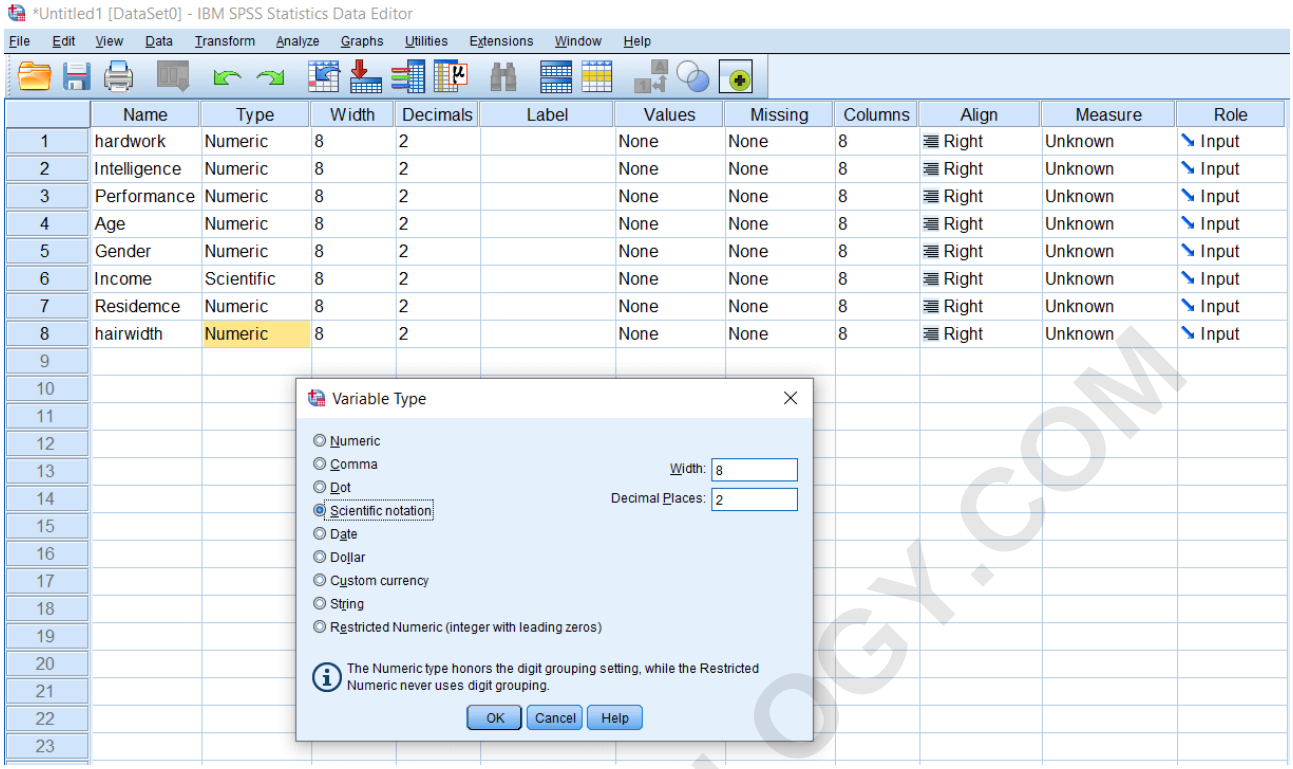


Now let's create another new variable to understand the negative value. We are creating hairwidth as a new variable because hairwidth has a very small dimension. It can be measured in microns. For this, type hairwidth and then press enter. Now a new variable hairwidth is created as follows:

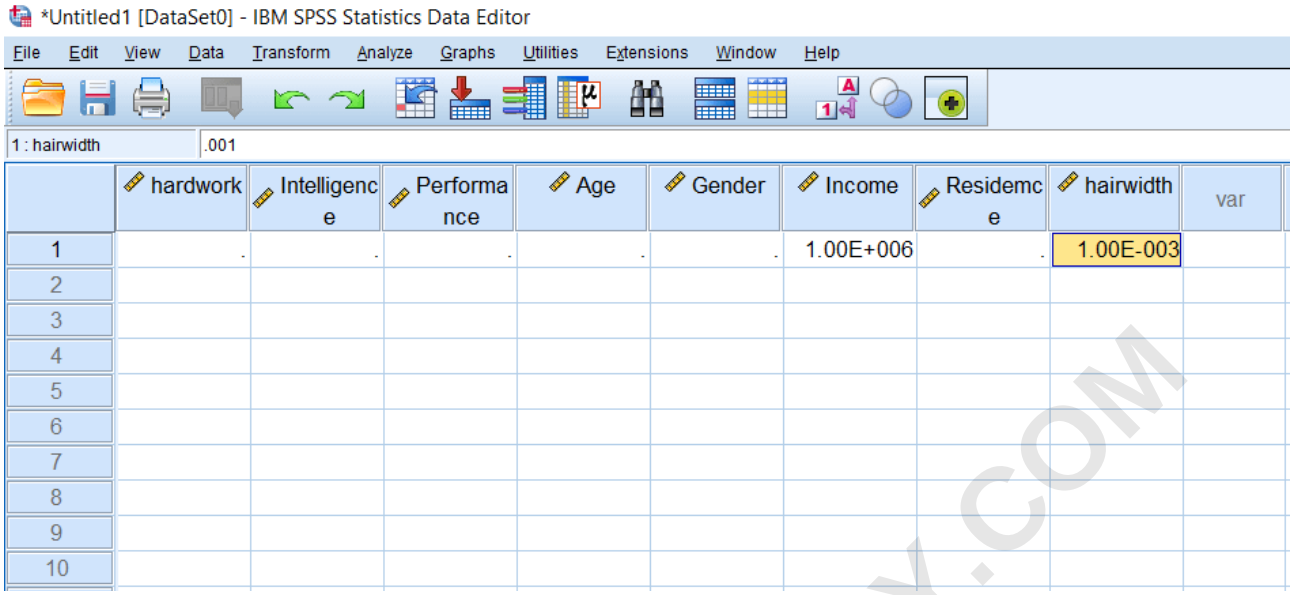


Suppose we are taking the first example as .001mm or unit. If we convert it into decimals, go to the decimal option of hairwidth and increase the number of decimals. Let's make it upto 4. So there is a width, and we wanted to write .001 that specifically 1/1000 unit.

Now instead of keeping it numeric variable, let's convert it into scientific notation. For this, go to Numeric type of hairwidth variable then click on Scientific notation and then press ok like this:



Now we need to change the number of decimals accordingly. In the following images, we will see that the new width is 1.00E-003, that exactly means .001 or 1/1000.



So that's how we use scientific notation in SPSS.