

KODNEST ASSIGNMENT 3

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SUBMITTED BY

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- *What is the range of data you can store in float and double?*
- *How many digits permitted after decimal point in float and double?*

In Java, the `float` and `double` data types are used to represent floating-point numbers. The `float` type is a single-precision 32-bit floating-point number, while the `double` type is a double-precision 64-bit floating-point number.

The range and precision of these data types are defined by the IEEE 754 floating-point standard, which Java adheres to.

For float:

Range: Approximately $\pm 1.4\text{E}-45$ to $\pm 3.4\text{E}+38$

Precision: Approximately 6-7 decimal digits

For double:

Range: Approximately $\pm 4.9\text{E}-324$ to $\pm 1.7\text{E}+308$

Precision: Approximately 15 decimal digits

It's important to note that these are approximate values because the exact range and precision can vary slightly depending on the specific Java implementation.