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| **Primitive data types in Java** | | | | |
| **Type** | **Description** | **Default** | **Size** | **Example Literals** |
| boolean | true or false | false | 1 bit | true, false |
| byte | twos complement integer | 0 | 8 bits | (none) |
| char | Unicode character | \u0000 | 16 bits | 'a', '\u0041', '\101', '\\', '\'', '\n', 'ß' |
| short | twos complement integer | 0 | 16 bits | (none) |
| int | twos complement integer | 0 | 32 bits | -2, -1, 0, 1, 2 |
| long | twos complement integer | 0 | 64 bits | -2L, -1L, 0L, 1L, 2L |
| float | IEEE 754 floating point | 0.0 | 32 bits | 1.23e100f, -1.23e-100f, .3f, 3.14F |
| double | IEEE 754 floating point | 0.0 | 64 bits | 1.23456e300d, -1.23456e-300d, 1e1d |

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| **Range of numeric data types in Java** | | |
| **Type** | **Size** | **Range** |
| byte | 8 bits | -128 .. 127 |
| short | 16 bits | -32,768 .. 32,767 |
| int | 32 bits | -2,147,483,648 .. 2,147,483,647 |
| long | 64 bits | -9,223,372,036,854,775,808 .. 9,223,372,036,854,775,807 |
| float | 32 bits | 3.40282347 x 1038, 1.40239846 x 10-45 |
| double | 64 bits | 1.7976931348623157 x 10308, 4.9406564584124654 x 10-324 |