

Java's Primitive Data Types

Data Type	Comment
boolean	<p>1-bit. May take on the values true and false only.</p> <p>true and false are defined constants of the language and are not the same as True and False, TRUE and FALSE, zero and nonzero, 1 and 0 or any other numeric value.</p> <p>Booleans may not be cast into any other type of variable nor may any other variable be cast into a boolean.</p>
char	<p>2 bytes, unsigned, Unicode, 0 to 65,535</p> <p>Chars are not the same as bytes, ints, shorts or Strings.</p>
byte	<p>1 signed byte (two's complement). Value range: -128 to 127.</p>
short	<p>2 bytes, signed (two's complement), -32,768 to 32,767</p>
int	<p>4 bytes, signed (two's complement). -2,147,483,648 to 2,147,483,647. Like all numeric types ints may be cast into other numeric types (byte, short, long, float, double). When lossy casts are done (e.g. int to byte) the conversion is done modulo the length of the smaller type.</p>
long	<p>8 bytes signed (two's complement). Ranges from -9,223,372,036,854,775,808 to +9,223,372,036,854,775,807.</p>
float	<p>4 bytes, IEEE 754. Covers a range from 1.40129846432481707e-45 to 3.40282346638528860e+38 (positive or negative).</p> <p>Like all numeric types floats may be cast into other numeric types (byte, short, long, int, double). When lossy casts to integer types are done (e.g. float to short) the fractional part is truncated and the conversion is done modulo the length of the smaller type.</p>
double	<p>8 bytes IEEE 754. Covers a range from 4.94065645841246544e-324d to 1.79769313486231570e+308d (positive or negative).</p>