

2^n -> 2^8 = 256 /2 = 128 -128 to 127

| **Type** | **Description** | **Default** | **Size** | **Example Literals** | **Range of values** |
| --- | --- | --- | --- | --- | --- |
| **boolean** | true or false | FALSE | 1 bit | true, false | true, false |
| **byte** | twos-complement integer | 0 | 8 bits | (none) | -128 to 127 |
| **char** | Unicode character | \u0000 | 16 bits | ‘a’, ‘\u0041’, ‘\101’, ‘\\’, ‘\’, ‘\n’, ‘β’ | characters representation of ASCII values  0 to 255 |
| **short** | twos-complement integer | 0 | 16 bits | (none) | -32,768 to 32,767 |
| **int** | twos-complement intger | 0 | 32 bits | -2,-1,0,1,2 | -2,147,483,648  to  2,147,483,647 |
| **long** | twos-complement integer | 0 | 64 bits | -2L,-1L,0L,1L,2L | -9,223,372,036,854,775,808  to  9,223,372,036,854,775,807 |
| **float** | IEEE 754 floating point | 0 | 32 bits | 1.23e100f , -1.23e-100f , .3f ,3.14F | upto 7 decimal digits |
| **double** | IEEE 754 floating point | 0 | 64 bits | 1.23456e300d , -123456e-300d , 1e1d | upto 16 decimal digits |