**What is literal in Java?**

A constant value which can be assigned to a variable is called literal.

int x = 10;

Integral Literal:

Decimal Literals(0-9)

Octal Literals(0-7)

Hexa Literals(0-9, A-F, a-f)

Refer IntegralLiteralTest.java for more details

**How you specify long literal?**

By default every integral literal is of integer type, but we can explicitly specify it in long by suffixed with small or capital ‘l’

long l = 10;

long l = 10l;

**Is it possible to assign long to int?**

**Nope**

**int i = 10l; not possible**

**Is there any possible direct way to specify byte and short value?**

No, there is no direct way to specify byte and short value. But whenever we are assigning integral literal to the byte and the value is within the range of byte, then compiler treat automatically as byte or short literal.

byte b = 10;

byte b = 127;

byte b = 128; //invalid

short s = 32767;

short s = 32768; //invalid

**How you specify floating point literal?**

By default every floating point literal is of double type and hence we can’t assign directly to the float variable. But we can specify floating point literal by suffix by `f` or `F`.

float f = 123.456;//invalid

float f = 123.456f;

double d= 123.456;

**How you specify double literal?**

double d= 123.456;

double d = 123.456d;

double d = 123.456D;

**Is it possible to specify the floating point literal using octal or hexa?**

No it is not possible. It is possible only for integral types.

**double** d2 = 0123.456; *//This is not octal, it is decimal(let me check why it is decimal)*

**double** d4 = 0X123.456;

System.***out***.println(d2+**" "**+d4);

**Can we assign integral literal directly to floating point variables?**

Yes we can.

double d = 0786;

double d = 0786.0

double d = 0XFace;

double d = 0XFace.0; //invalid

**Is it possible to assign floating point to integral type?**

Nope not possible

int x = 10.0;//invalid

**Can we specify floating point literal in exponential form?**

Yes it is possible

*//exponential*

**double** d6 = 1.2e3;

*/\*float f1 = 1.2e3;\*/ //not possible*

System.***out***.println(d6+**", "**);