1. Statically Typed Language-type checking at compile time

Dynamically Typed Language-type cheking at runtime

Strongly Typed Language-most consider about data types

Loosely Typed Language-not most consider about data types

```
java-> Statically Typed Language
Dynamically Typed Language
Strongly Typed Language
```

2.In case sensitive matter describe a programming language's ability to difference between upper case and lower case letters.

```
ex-int A=10; int a=10 are not equal.
```

In case insensitive upper and lowercase letters is same.

```
ex-int A=10; int a=10 are equal.
```

Case Sensitive-Insensitive-some times upper and lowercase letters is same and some times not.

```
java->case sensitive
```

3.A conversion from a type to that same type is permitted for any type.

```
ex- int x=10;
double y=10.5;
```

```
4. char

|
byte-->short-->int-->long
| \ / |
| \ \ |
| \ \ |
float-->double
```

```
ex- char myChar=5;
byte myByte=10;
```

```
short myShort=myByte;
int myInt1= myShort;
int myInt2=myChar;
long myLong=myInt1;
```

```
float myFloat1=myInt1;
float myFloat2=myLong;
```

```
double myDouble1=myLong;
double myDouble2=myInt1;
double myDouble3=myFloat1;
double myDouble4=myFloat2;
```

5.run time constants- value assign at runtime ex- final int x=10;

compile time constants- value assign at compile time ex- final int x=10*(int) Math.random();

6.Implicit (Automatic) Narrowing Primitive Conversions- assigning a larger type to a smaller type automatically conditions: the value must be a compile time constant value must in the range of assigning type

Explicit Narrowing Conversions (Casting)- assigning a larger type to a smaller type by casting

10. This situation happens in a very specific case when we want to convert from a byte to a char. The first conversion is the widening of the byte to int and then from the int it is narrowed down to char.