Type Conversion and Casting

Byte –> Short –> Int –> Long – > Float –> Double

Widening or Automatic Conversion

Double –> Float –> Long –> Int –> Short –> Byte

Narrowing or Explicit Conversion

S.NO	TYPE CASTING	TYPE CONVERSION
1.	In type casting, a data type is converted into another data type by a programmer using casting operator.	Whereas in type conversion, a data type is converted into another data type by a compiler.
2.	Type casting can be applied to **compatible data types** as well as **incompatible data types**.	Whereas type conversion can only be applied to **compatible datatypes**.
3.	In type casting, casting operator is needed in order to cast a data type to another data type.	Whereas in type conversion, there is no need for a casting operator.
4.	In typing casting, the destination data type may be smaller than the source data type, when converting the data type to another data type.	Whereas in type conversion, the destination data type can't be smaller than source data type.
5.	Type casting takes place during the program design by programmer.	Whereas type conversion is done at the compile time.
6.	Type casting is also called narrowing conversion because in this, the destination data type may be smaller than the source data type.	Whereas type conversion is also called widening conversion because in this, the destination data type can not be smaller than the source data type.
7.	Type casting is often used in coding and competitive programming works.	Whereas type conversion is less used in coding and competitive programming as

		it might cause incorrect answer.
8.	Type casting is more efficient and reliable.	Whereas type conversion is less efficient and less reliable.