```
public static void main(String[] args) {

// assigning lower data type to higher data type
// here long is lower data type and float is higher data type
long l1 = 10; //8 bytes
float f1 = l1; //4 bytes
System.out.println(f1); // 10.0

//Type mismatch: cannot convert from float to long
//float f2 = 10.0f;
//long l2 = f2;
//System.out.println(l2);

}
```

```java
public static void main(String[] args) {

// Type mismatch: cannot convert from short to byte
//explicit casting assigning higher to lower but this type conversion is not possible
int i1 = 10;
//byte b1 = (short) i1;
//System.out.println(b1);

int i2 = 20;
byte b2 = (byte)i2;
System.out.println(b2); // 20
}
```

```
public static void main(String[] args) {

// assigning higher data type to lower explicit casting
long l1 = 10;
int i1 = (byte) l1; // but here left type should be higher not lower
System.out.println(i1); // 10

float f1 = 10.0f;
long l2 = (int) f1; // but here left type should be higher not lower
System.out.println(l2); // 10

//type mismatch: cannot convert from float to long
//here float is higher compared to long
//double d1 = 10.0;
//long l3 = (float)d1; // but here left type should be higher not lower
//System.out.println(l3);
```

```
public static void main(String[] args) {

int i1 = 10;
int i2 = 20;
long l1 = (long) (i1 + i2);
System.out.println(l1); // 30

double d1 = 10.0;
float f1 = 10.0f;
long l2 = (long) (d1 + f1);
System.out.println(l2); // 20

}
```

```
public static void main(String[] args) {

double d1 = 10.0;
byte b1 = (byte) (short) (int) (long) (float) (double) d1;
System.out.println(b1); // 10
}
```