2. (30 points) What is the main difference between coercion and casting? Give an example for each of them.

Coercion is implicit type conversion initiated by the compiler, casting is explicit type conversion requested by the programmer.

```java
int a = 5;
double b = 10.0;
...
b = a; // coercion example
a = (int) b; // casting example
```

3. (30 points) Give a simple “short circuit evaluation” example and briefly explain.

```java
int index = 0;
int listlen = list.length;
while((index < listlen) && (list[index]!=null)){
    index ++;
}
```

If PL has short circuit evaluation capability, second condition is not considered when first condition is not true. If PL has not short circuit evaluation capability, then the code snippet gives index out of bounds error when first condition is not true.