Part 1:

1. This would not work. ‘g’ gets ‘a’ which is T1, and this is correct. Then returns T2 and in input for ‘f’. ‘f’ accepts T1 as an input. Thus, this is wrong when T1 != T2.
2. This is true. ‘y’ is of type T2, and ‘f’ accepts as an input T2, and returns T1, which is also the return type stated after (f y).
3. This is true, the ‘lambda’ receives ‘x’ and applying ‘f’ on ‘x’, where ‘f’ accepts T1 as an input and returns T2 as an output, which is also the return type of the ‘lambda’.
4. This may be false, depends on the type of T2. ‘x’ is of type T1, which is the first type ‘f’ accepts, which is correct. But the second type in a ‘Number’, which may cause a problem if T2 != Number.