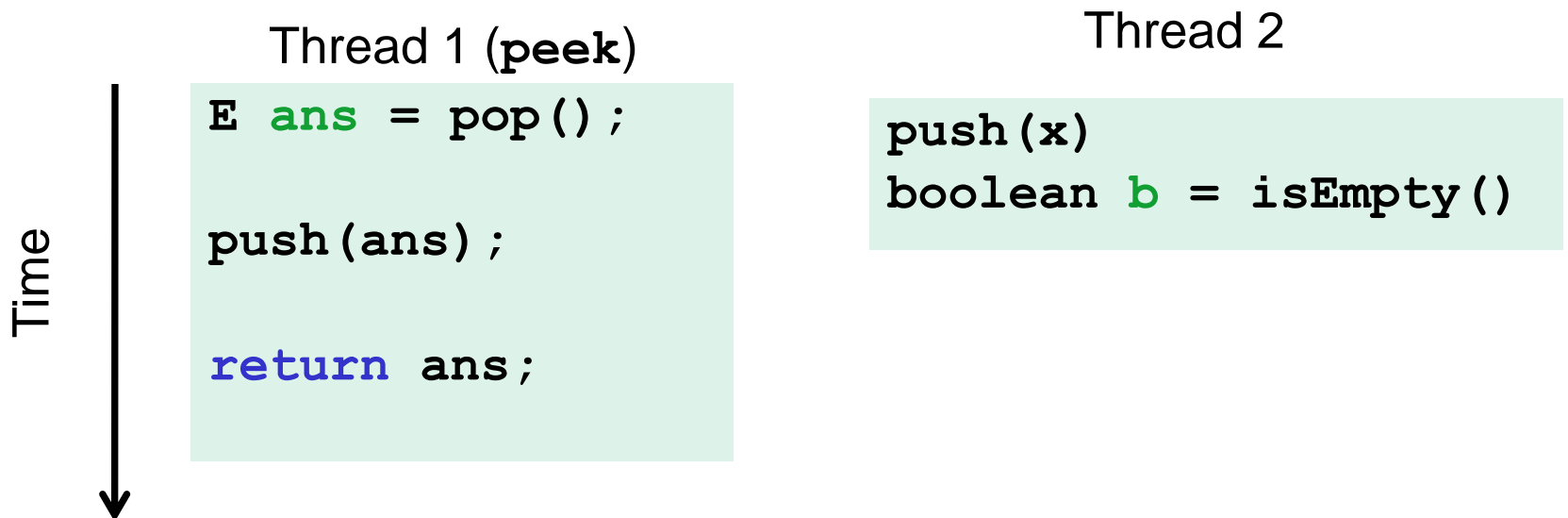


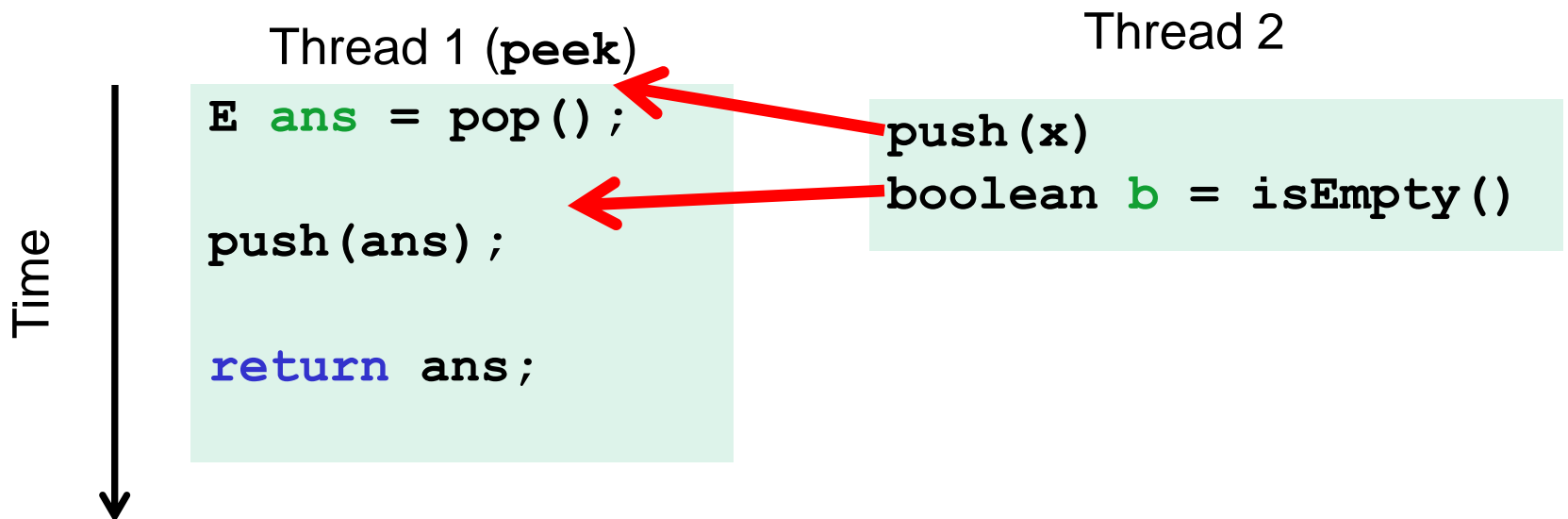
# *peek and isEmpty*

- Property we want: If there has been a **push** and no **pop**, then **isEmpty** returns **false**
- With **peek** as written, property can be violated – how?



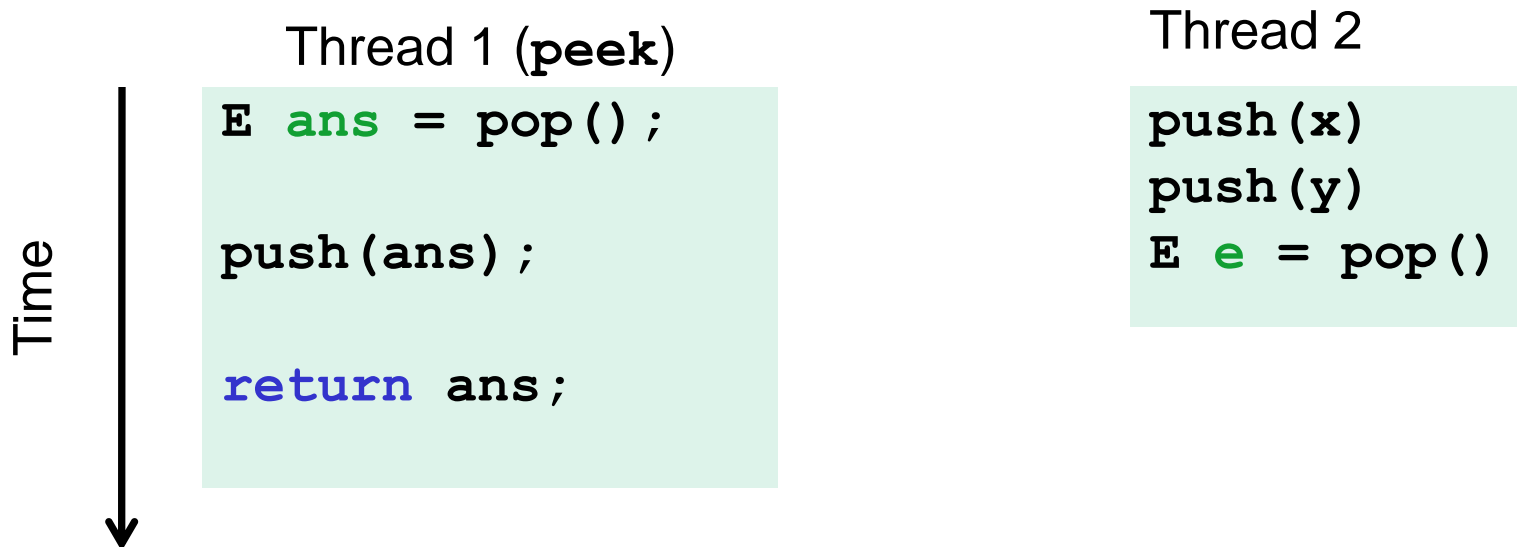
# *peek and isEmpty*

- Property we want: If there has been a **push** and no **pop**, then **isEmpty** returns **false**
- With **peek** as written, property can be violated – how?



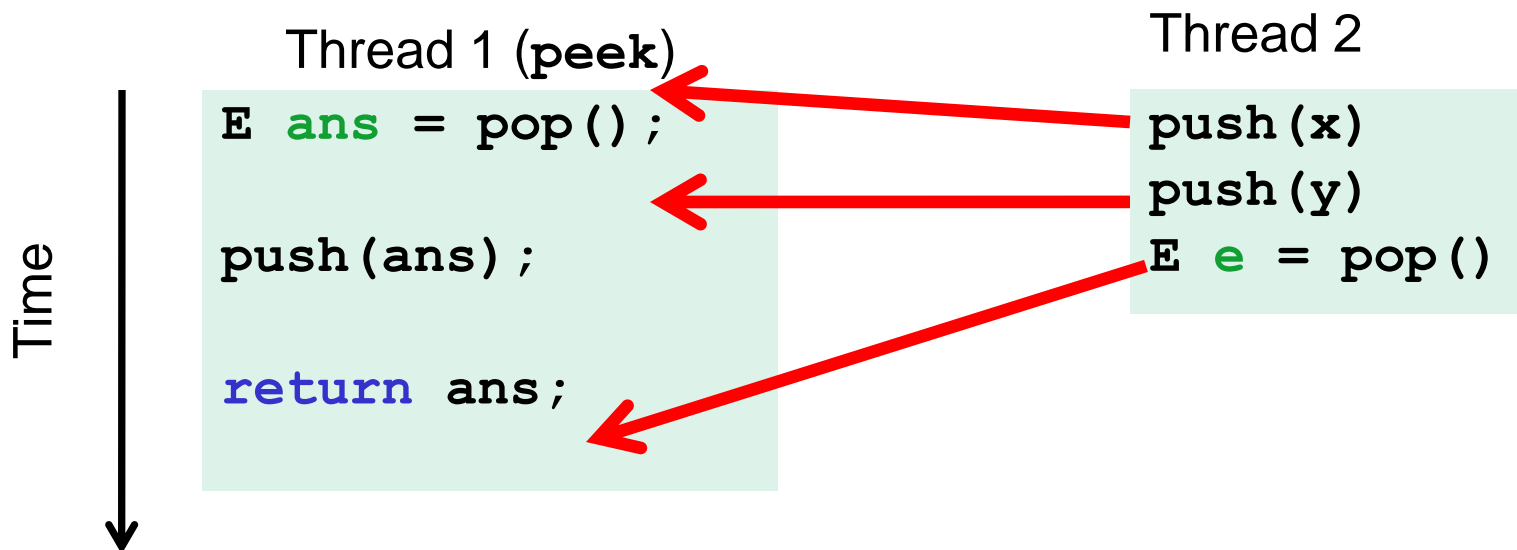
# *peek and push*

- Property we want: Values are returned from **pop** in LIFO order
- With **peek** as written, property can be violated – how?



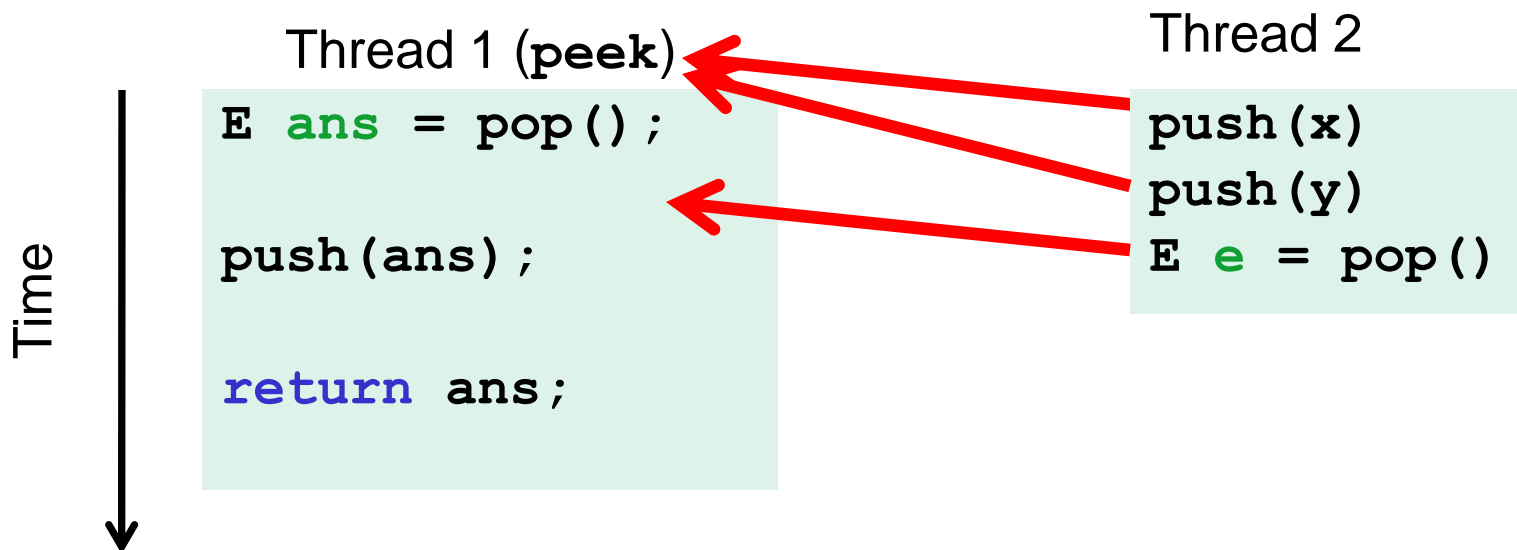
# *peek and push*

- Property we want: Values are returned from **pop** in LIFO order
- With **peek** as written, property can be violated – how?



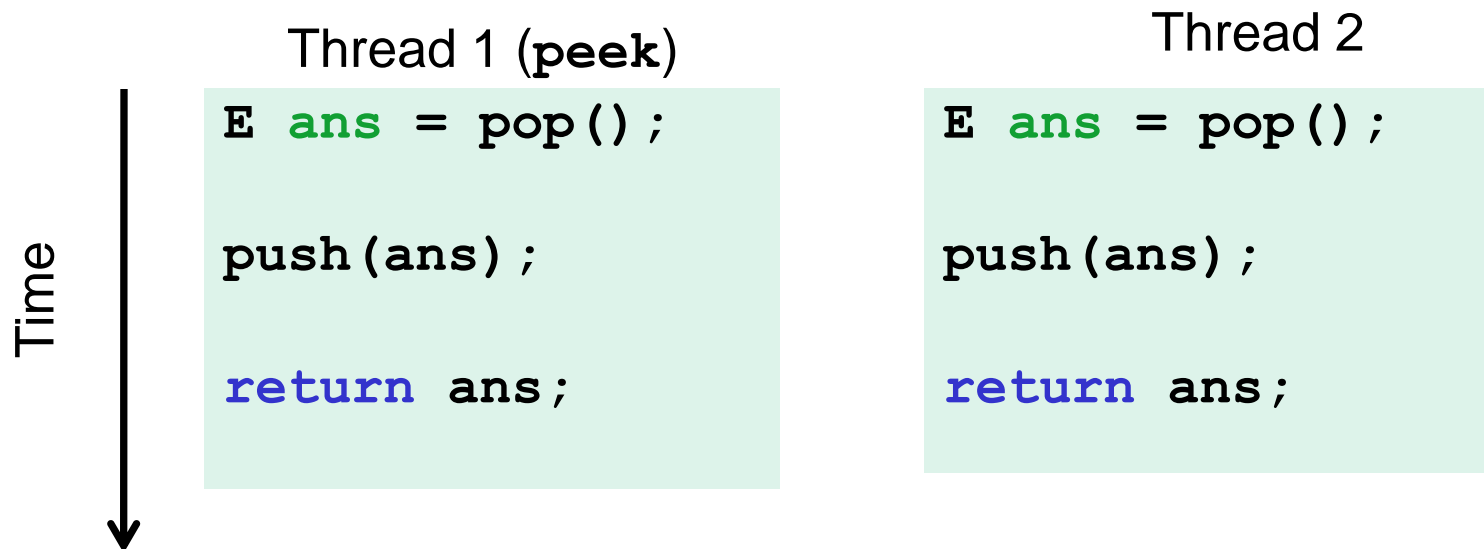
# *peek and pop*

- Property we want: Values are returned from **pop** in LIFO order
- With **peek** as written, property can be violated – how?



# *peek and peek*

- Property we want: **peek** does not throw an exception if number of pushes exceeds number of pops
- With **peek** as written, property can be violated – how?



# *peek and peek*

- Property we want: **peek** doesn't throw an exception if number of pushes exceeds number of pops
- With **peek** as written, property can be violated – how?

