```
1  from multiprocessing import Process
2  from threading import Thread
3
4  shared_x = random.randint(10,99)
5
6  def sleeping(name):
7      global shared_x
8      s = randint(1,20)
9      sleep(s)
10     shared_x = shared_x + 1
11
12 def sleeper(name):
13     sleeplist = list()
14     for i in range(3):
15         subsleeper = Thread(target=sleeping, args=(name+' '+str(i),))
16         sleeplist.append(subsleeper)
17
18     for s in sleeplist: s.start()
19     for s in sleeplist: s.join()
```

(a)

```
eve sees shared x being 71
53:21 eve 0 is going to sleep for 20 seconds
bob sees shared x being 84
53:21 eve 1 is going to sleep for 15 seconds
53:21 eve 2 is going to sleep for 3 seconds
53:21 bob 0 is going to sleep for 8 seconds
53:21 bob 1 is going to sleep for 16 seconds
53:21 bob 2 is going to sleep for 8 seconds
53:24 eve 2 has woken up, seeing shared x being 72
53:29 bob 0 has woken up, seeing shared x being 85
53:29 bob 2 has woken up, seeing shared x being 86
53:36 eve 1 has woken up, seeing shared x being 73
53:37 bob 1 has woken up, seeing shared x being 87
bob sees shared x being 87
53:41 eve 0 has woken up, seeing shared x being 74
eve sees shared x being 74
```

(b)