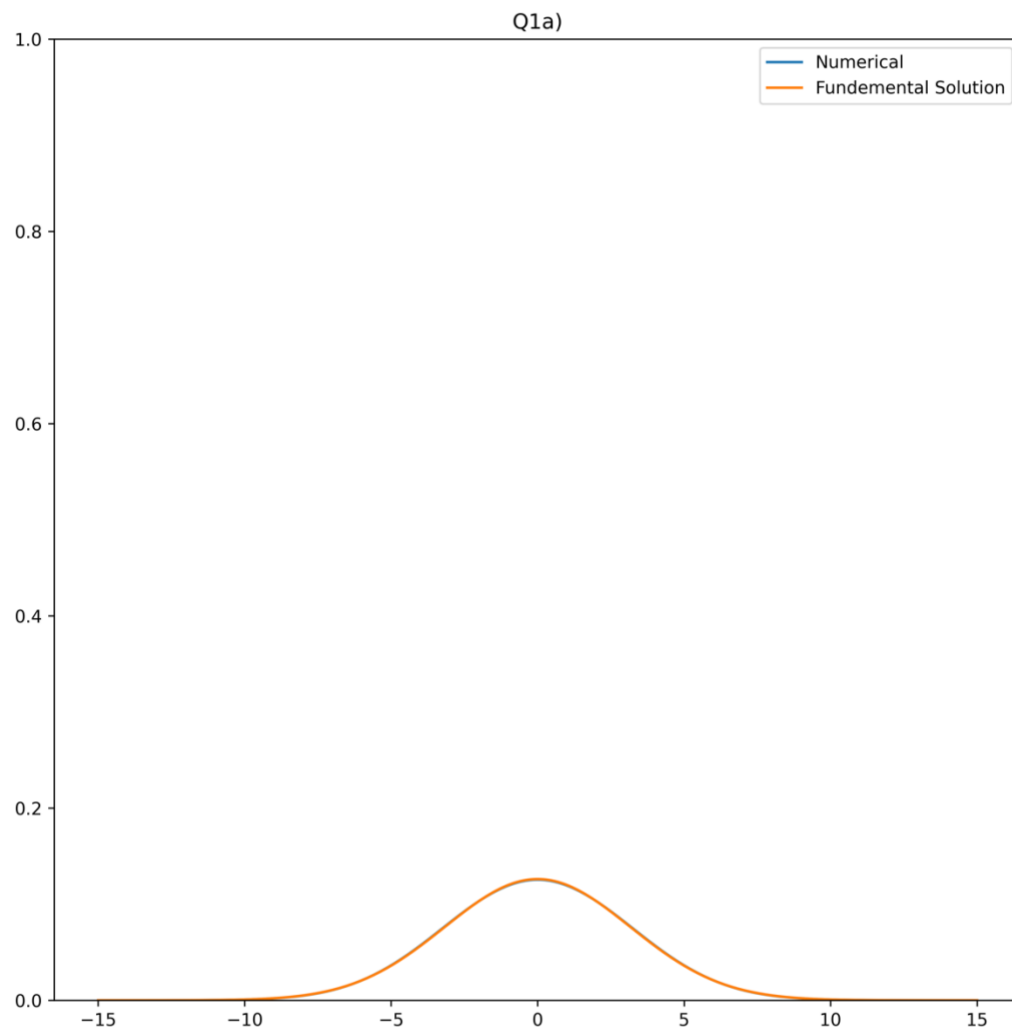


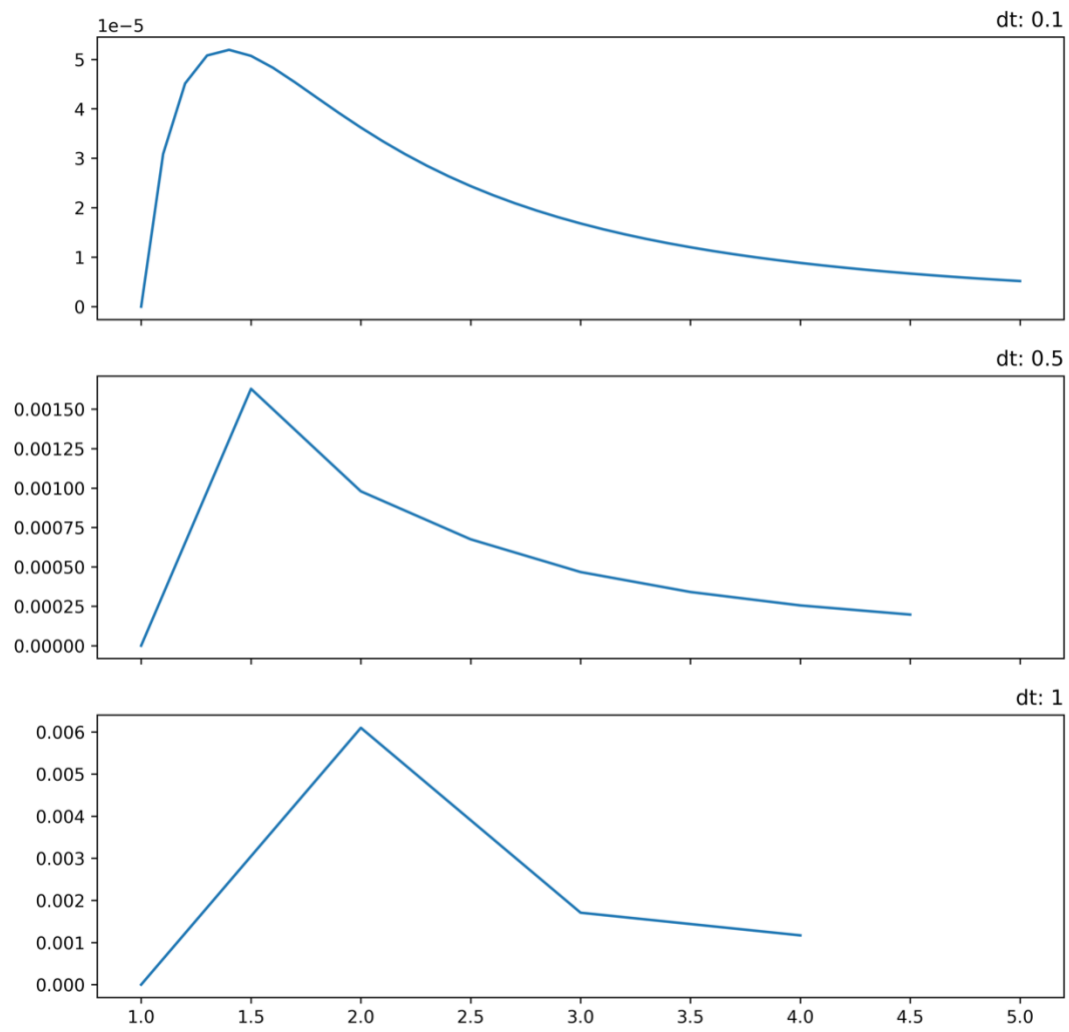
Computational Physics 3  
HW6  
Christopher Morris

**Question 1**



The numeric solution is almost exactly the fundamental solution at  $t = 5$

Qb)



### **Question 2**

a)

D: 1, L: 10; Time for right to reach .5 is 37.900000000000027

D: 4, L: 10; Time for right to reach .5 is 9.599999999999982

D: 1, L: 5; Time for right to reach .5 is 9.599999999999982

Yes they agree.

b)

.5

### **Question 3**

dt = .005 and J = 1501

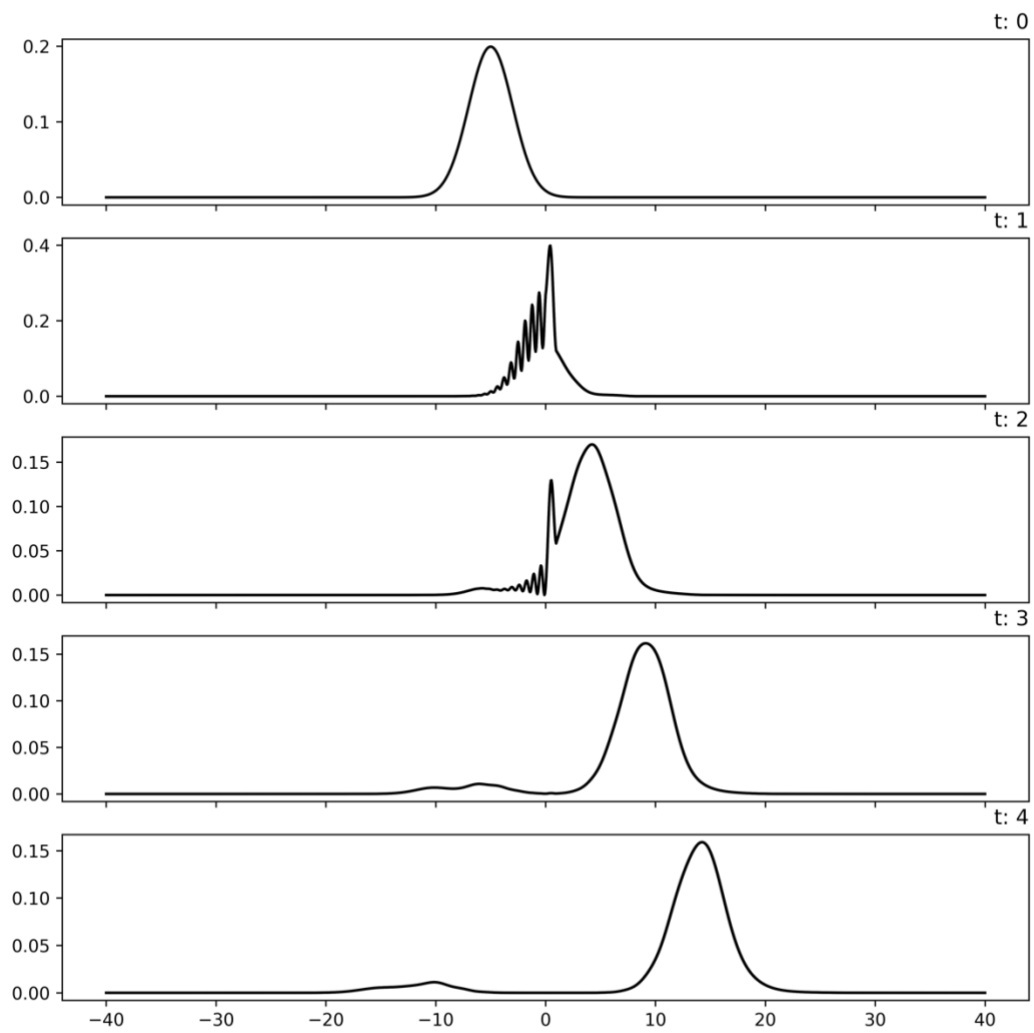
for all pbar/tmax pairs.

I ran out of time to do through more exact testing in order to narrow down the numbers more.

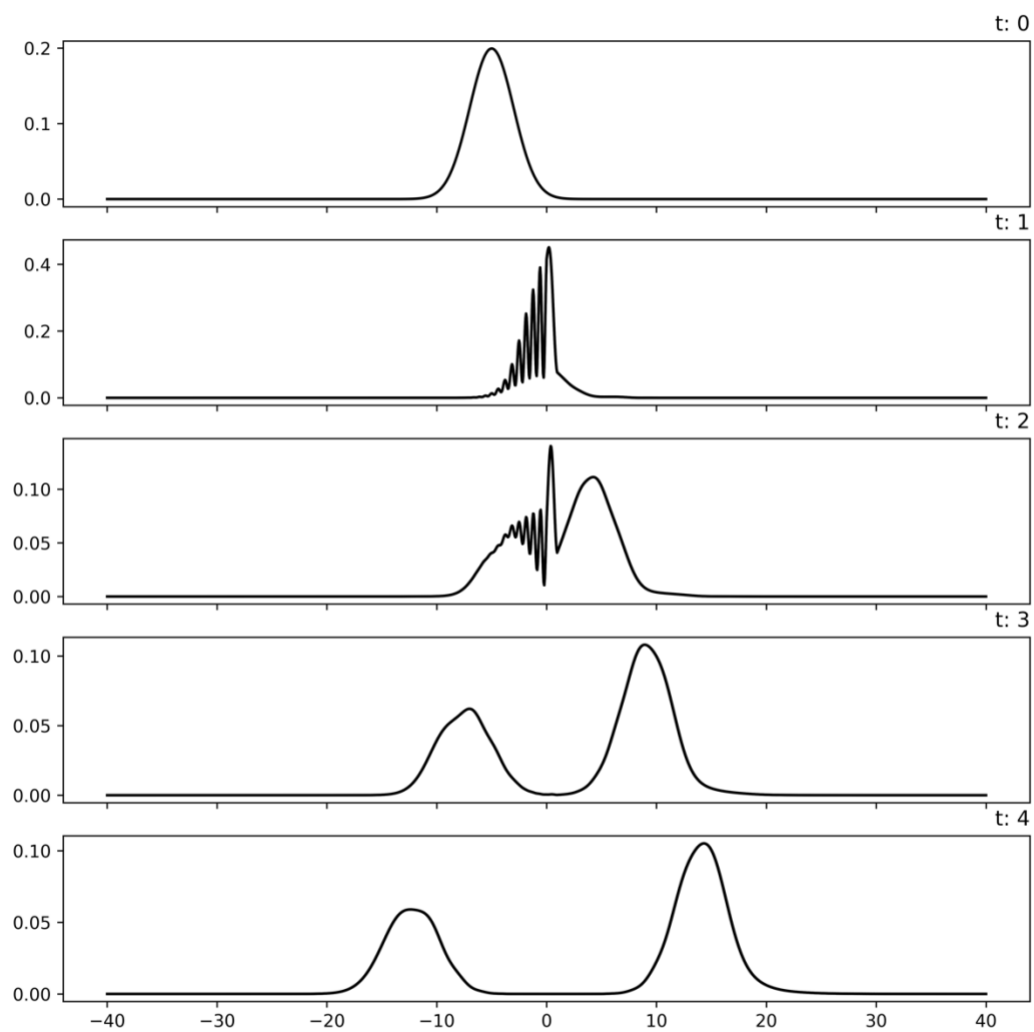
#### Question 4

Using  $dt = .005$  and  $J = 1501$

$V_0: 8$



V0: 10



V0: 12

