1.   
Multiply Choice

Run: 1 | 2 | 3 | 4 | 5  
Q: 1 | 2 | 4 | 8 | 15   
Acc: 1 | 3 | 7 | 15 | 30

5 swaps

2.

A: 1(50), 2(150), 3(300), 4(85)  
B: 1(300), 2(150), 3(85), 4(50)

A: 4 estimate: 50/8 + 150/8 + 300/4 + 85/8  
A: 4 estimate: 6.25 + 18.75 + 75 + 42.5 = 142.5

B: 4th estimate: 300/8 + 150/8 + 85/4 + 50/2  
B: 4th estimate: 37.5 + 18.75 + 21.25 + 25 = 102.5

3.

CPU-bound: This process doesn’t interact with the user  
I/O-bound: This process interact with the user  
  
The I/O-bound has a high priority, because it interact with the user. You need it immediately, because the user won’t wait a long period for it.

If the Scheduler couldn’t decide which process the I/O-bound or CPU-bound  
process were, then the user could wait for a long period of time until  
for example his/her/else Browser started.

4.

1st, 2nd, 3rd, 4th  
Periods P: 50, 100, 200, 250  
Seconds of CPU-Time: 35, 20, 10, $x$

R: (C1/P1)+(C2/P2)+(C3/P3)+(C4/P4) =< 1  
R: 35/50 + 20/100 + 10/200 + x/250 =< 1

35/50 + 20/100 + 10/200 = 0.95

Since it is a soft real-time-system,it is tolerable that it is "slower"  
if x is 12.5, then it would reach : 0.95 + 12.5/250 = 1  
so if x is 12.5 and the result is exactly 1 then it is still schedulable,  
thus the highest number for x is 12.5;