CSUN Econ 433 Week 6 Problem Set

Ann has a 5% chance of getting sick annually and if she gets sick, the cost to treat the sickness is $20,000.

Betty has a 15% chance of getting sick annually and if she gets sick, the cost to treat the sickness is $40,000.

Clara has a 20% chance of getting sick annually and if she gets sick, the cost to treat the sickness is $50,000.

1. Calculate the actuarially fair annual premium for insuring Ann on her own. Do the same for Betty and Clara.
2. If Ann, Betty, and Clara were all in the same insurance pool and the insurance company was forced to charge each of them the same premium, what premium would they have to charge to each to break even?
3. If the insurance company were to charge the premiums from problem 2, what would happen next?