Word Problems

1. Kelsey made cupcakes to sell as a fundraiser for her trip to Washington DC. She purchased one cupcake pan for $12. She calculated that the ingredients cost her $0.25 per cupcake. She plans to sell the cupcakes for $0.75 each.

    a. Define your variable.

    b. Write an equation that represents when she will break even.

    c. If she sold 184 cupcakes, what was her profit?

2. Ramona has $800 in her account and plans to take $40 out each week. Xavier has $310 in his account and plans to add $30 each week. After how many weeks will Ramona and Xavier have the same amount in their accounts? Define your variable and write an equation that represents this situation and solve.

3. Ty has two job offers at a gym. One has a base monthly salary of $1200 and an additional $50 per new client he gets to join the gym. The other offer does not have a base salary but he gets $100 for every new client who joins the gym. How many clients would Ty need to get to join the gym to make the second offer better than the first? Explain how you know your answer is correct.