

Alex, Charlie, Dakota, and Emerson are getting a 4 bedroom apartment for \$1400 per month. They value the rooms according to the following chart (feel free to ignore the “total” parts if they are not helpful):

	Mast	Long	Square	Small	Total
Alex	\$ 275	\$ 275	\$ 325	\$ 350	\$1225
Charlie	\$ 300	\$ 325	\$ 400	\$ 275	\$1300
Dakota	\$ 325	\$ 350	\$ 250	\$ 425	\$1350
Emerson	\$ 225	\$ 425	\$ 250	\$ 275	\$1175
Total	\$1125	\$1375	\$1225	\$1325	\$5050

1. What is wrong with giving everyone their favorite room?

so Alex and Dakota get the small bedroom, Charlie gets the square bedroom, and Emerson gets the long bedroom.

2. What is wrong with giving the room to whoever wants it most?

so the master bedroom goes to Dakota, the long bedroom to Emerson, the square bedroom to Charlie, and the small bedroom to Dakota.

3. What is wrong with just giving out the rooms in the order they are written?

so the master bedroom goes to Alex, the long bedroom goes to Charlie, the square bedroom goes to Dakota, and the small bedroom goes to Emerson.

4. Give a feasible way to split the rooms, so that the renters are willing to pay enough to cover the rent. You don't need to worry about the leftover money (I'll take it ;-).

Alex, Charlie, Dakota, Emerson, and Finley won the Halloween costume contest and got an **amazing prize**. While all five agree they deserve the prize equally (that is, each owns 20% of the prize), the prize itself is not very good divided (it is a set of top and bottom vampire teeth—no one was amused when I suggested each person gets one tooth; I suggested they take turns wearing the teeth, but they just said, “ewwww.”). They decided they would prefer one person to own the teeth 100%, and that person will pay the others for their 20%.

	Teeth
Alex	\$20
Charlie	\$25
Dakota	\$10
Emerson	\$ 5
Finley	\$ 0
Total	\$60

5. If we want to maximize happiness, who should get the teeth? Explain why.
(In #6-#8 I'll call this person “Toothy”)

6. Toothy is happy, but the other 4 people just lost 20% of the teeth. What is the minimum amount Toothy needs to pay each other person to make them happy?

7. What is the maximum total amount Toothy would be willing to pay to the other people?

8. What should they do with Toothy's leftover money? Say exactly who gets the teeth, and who pays whom how much.

Alex, Blair, Charlie, and Emerson are getting a 4 bedroom apartment for \$1400 per month. They value the rooms according to the following chart (feel free to ignore the “total” parts if they are not helpful):

	Mast	Long	Square	Small	Total
Alex	\$ 275	\$ 275	\$ 325	\$ 350	\$1225
Blair	\$ 300	\$ 325	\$ 400	\$ 275	\$1300
Charlie	\$ 225	\$ 425	\$ 250	\$ 275	\$1175
Emerson	\$ 325	\$ 350	\$ 250	\$ 425	\$1350
Total	\$1125	\$1375	\$1225	\$1325	\$5050

1. What is wrong with giving everyone their favorite room?

so Alex and Emerson get the small bedroom, Blair gets the square bedroom, and Charlie gets the long bedroom.

2. What is wrong with giving the room to whoever wants it most?

so the master bedroom goes to Emerson, the long bedroom to Charlie, the square bedroom to Blair, and the small bedroom to Emerson.

3. What is wrong with just giving out the rooms in the order they are written?

so the master bedroom goes to Alex, the long bedroom goes to Blair, the square bedroom goes to Charlie, and the small bedroom goes to Emerson.

4. Give a feasible way to split the rooms, so that the renters are willing to pay enough to cover the rent. You don't need to worry about the leftover money (I'll take it ;-).

Alex, Blair, Dakota, Emerson, and Finley won the Halloween costume contest and got an **amazing prize**. While all five agree they deserve the prize equally (that is, each owns 20% of the prize), the prize itself is not very good divided (it is a set of top and bottom vampire teeth—no one was amused when I suggested each person gets one tooth; I suggested they take turns wearing the teeth, but they just said, “ewwww.”). They decided they would prefer one person to own the teeth 100%, and that person will pay the others for their 20%.

	Teeth
Alex	\$10
Blair	\$20
Dakota	\$25
Emerson	\$ 5
Finley	\$ 0
Total	\$60

5. If we want to maximize happiness, who should get the teeth? Explain why.
(In #6-#8 I'll call this person “Toothy”)

6. Toothy is happy, but the other 4 people just lost 20% of the teeth. What is the minimum amount Toothy needs to pay each other person to make them happy?

7. What is the maximum total amount Toothy would be willing to pay to the other people?

8. What should they do with Toothy's leftover money? Say exactly who gets the teeth, and who pays whom how much.