

Alex, Blair, Charlie, and Devin see an ad for a 4-bedroom apartment for \$1215/mo.

Who should get which room?

How much should each pay per month?



Typical Four-Bedroom Floor Plan

	Master Bedroom	Square with Bath	Long No Bath	Square No Bath
Alex	\$365	\$315	\$295	\$315
Blair	\$345	\$295	\$325	\$295
Charlie	\$275	\$310	\$245	\$255
Devin	\$305	\$295	\$235	\$235

Today we focus on who gets which room.

(a) If we give A the master bedroom, and B the square room with bath, and C the long room with no bath, and D the square room with no bath, how much, **total** will the roommates be willing to pay? How do you think that'll work?

(b) OK, do better. Find an assignment of rooms where they are willing to pay at least \$1200 per month total. Who gets which room and how much are they willing to pay total?

(c) Explain in a complete sentence or two why we want to find an assignment where the roommates are willing to pay a lot per month, total. Why do we want to get numbers even bigger than the total monthly rent (of \$1215)?