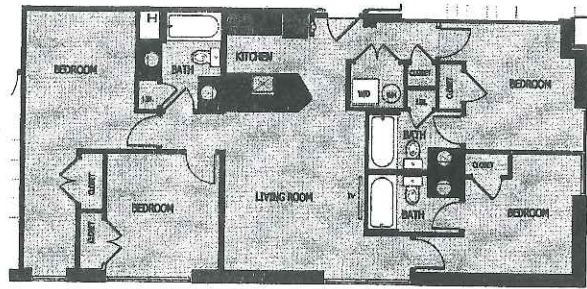Alex, Blair, Charlie, and Devin see an ad for a 4-bedroom apartment for $1215/mo.

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?

$$365 + 295 + 245 + 235 = \$1140$$

not enough to cover rent unless people pay more than they think it is worth. :)

(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?

Best: 1255,   2nd Best: 1240   3rd Best: 1235

A: SnB 315	MB 365	MB 365
B: LnB 325	LnB 325	LnB 325
C: SwB 310	SnB 255	SwB 310
D: MB 305	SwB 295	SnB 235

(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)?

The extra money can be used to lower people's rent payments. The more extra money, the more the payments get lowered.