Blair, Casey, and Devin are throwing a for-profit party and splitting the money at the end evenly. They all agree live music is probably a good idea, but disagree on how much to pay for it. Since they are splitting the profits evenly, they are only willing to pay a third (each) of what they think the band will bring in.

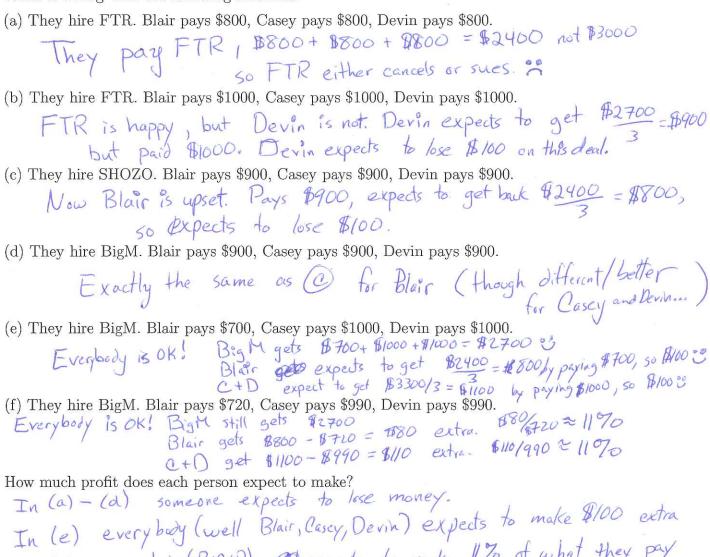
Which band should they book and how should they split the bill?

Here are their guesses on how much each band would bring in, along with the band's cost:

| | Ford Theater Reunion | SHOZO | Big Maracas | No Band |
|-------|----------------------|--------|-------------|---------|
| Blair | \$3000 | \$2400 | \$2400 | \$0 |
| Casey | \$3300 | \$3000 | \$3300 | \$0 |
| Devin | \$2700 | \$3000 | \$3300 | \$0 |
| Band | \$3000 | \$2700 | \$2700 | \$0 |

The band will only be happy if it is paid in full. Blair, Casey, and Devin will only be happy if they pay less than a third of what they think the band will bring in. Can we make everyone happy according to those requirements?

What is wrong with the following solutions?



In (f) every body (B+C+D) get expects to make 11% of what they pay

In part (e) and (f) there is extra money, surplus.
But it is divided diffently.

I would say it is the one where we have the most surplus to split!

How do we find the sorplus? It is the average value minus the cost

| | FTR | 94020 | BigM | No Band |
|----------|----------------|----------------|----------------|---------|
| AVE? | 3000+3300+2700 | 2400+3000+3000 | 2400+3360+3300 | 0+0+0 |
| AVE | = 3000 | = 2700 | = 3000 | = 0 |
| Cost | 3000 | 2700 | 2700 | 0 |
| Surplus | \$0 | \$0 | \$300 | \$0 |
| Joi pres | | | 1 same. | |

Big Maracas gives the opportunity for \$300 profit