MA111: Contemporary mathematics

Entrance Slip (due 5 min past the hour):

Three BFF roommates are ordering delivery to celebrate agreeing on rent. There are great deals on some family platters, but which one should they get? The table lists what each person is willing to pay personally for each platter along with what it costs total.

	BBQ Bonanza	Cheese Cornucopia	Delicious Donut Dinner	Vegan Variety	Absolutely Nothing
Avery	12	10	5	4	0
Edna	10	8	3	9	0
Ivy	5	7	4	10	0
Cost	30	20	8	15	0

Which platter should they get and how much should each person pay?

Schedule:

- HW Comp1-Rooms is due by 11:50pm tonight
- HW Comp2-Shared is due by 11:50pm, Thu Nov 5th, 2015
- Mini-exam 3 is in class, Thu Nov 5th, 2015
- Exam 3 is in class, Thu Nov 19th, 2015

Today we look at more trouble with splitting the bill

While we are passing out the worksheet...

- Please turn in your entrance slips. We will do this every non-exam day.
  Please bring your own 3x5 index cards.
- Someone explain why they shouldn't get the BBQ platter
- What should they get instead?

Important concepts

- The **value** depends on who is asked
- Splitting the bill might not be even if people get different values from it
- The **surplus** is the amount of money leftover after everyone pays the most they are willing for what they get
- That there **is** a surplus is pretty amazing

Exit quiz

- Alex, Blair, Casey, and Devin consider going on a ghost tour. They have different ideas about how much it is worth to them.

	Ghost tour
Alex's value	\$12
Blair's value	\$16
Casey's value	\$ 8
Devin's value	\$32
Cost per person	\$16

The total cost is $4 \times \$16 = \$64$.

- How can the cost be split so that no one has to pay more than they think the tour is worth?

Alex pays:_____ Blair pays:_____

Casey pays:_____ Devin pays:_____