

Quiz 8 Solutions

An ancient relic has been donated to the museums of Boston - the MFA (A), ICA (B), and Mass MoCA (C) have asked a referee to make a compensation arrangement. They submit their bids for the relic:

$$a = 330,000 \quad b = 240,000 \quad c = 300,000$$

1. (3 pts) What are the fair shares?

A: $330K/3 = 110,000$

B: $80,000$

C: $100,000$

2. (1 pt) What is the average bid?

$$m = 290,000$$

$$\frac{330K + 240K + 300K}{3} = \frac{330K}{3} + \frac{240K}{3} + \frac{300K}{3} = 110K + 80K + 100K = 290K$$

3. (1 pt) If B is chosen as the winner, is a fair compensation arrangement possible?

Circle One: Yes No

4. Suppose C is chosen as the winner and the compensation amounts are

$$x_A = 100,000$$

$$x_B = 90,000$$

(a) (2 pts) Compute the payout to the winner, C , given these compensation amounts:

$$x_C = 300K - 100K - 90K = 110,000$$

(b) (1 pt) Is this compensation arrangement fair to A ?

Circle One: Yes No

(c) (1 pt) Is this compensation arrangement fair to C ?

Circle One: Yes No

(d) (1 pt) What does A think C gets?

$$AtCg = 330K - 100K - 90K = 140,000$$

Something we can observe here which is always true: If the compensation arrangement is not fair to A , then A will have envy!

Why should this be true? Think: envy table, and what we discussed in class for the case of two bidders.