

Name:

Quiz 2

A, B, C and D inherit a painting. These are their values for the painting:

$$a = \$8,000 \quad b = \$10,000 \quad c = \$10,000 \quad d = \$12,000$$

1. Find each player's fair share.

2. They decide that A will get the painting, and pay B and C each \$2000, and pay D \$3000.

Find X_A .

For what player(s) is this arrangement fair?

Does C envy D? Why?

Does C envy A? Why?

3. What is the average bid?

4. If you want to be sure that a fair arrangement is possible, list the player(s) that could get the object.

Name: Solutions

Quiz 2

A, B, C and D inherit a painting. These are their values for the painting:

$$a = \$8,000 \quad b = \$10,000 \quad c = \$10,000 \quad d = \$12,000$$

1. Find each player's fair share.

$$2000 \quad 2500 \quad 2500 \quad 3000$$

2. They decide that A will get the painting, and pay B and C each \$2000, and pay D \$3000.

Find X_A .

$$\begin{aligned} X_A &= 8000 - 2000 - 2000 - 3000 \\ &= 1000 \end{aligned}$$

For what player(s) is this arrangement fair?

only D.

Does C envy D? Why?

Yes, $2000 > 3000$

Does C envy A? Why?

C thinks A got $10,000 - 2000 - 2000 - 3000 = 3000$
so yes, C envies A

3. What is the average bid?

$$M = \frac{8000 + 10000 + 10000 + 12000}{4} = \frac{40000}{4} = \boxed{10,000}$$

4. If you want to be sure that a fair arrangement is possible, list the player(s) that could get the object.

B, C, D.