Fruit Bundle Mystery

HOST GUIDE - includes solutions | A4 | v1.0.0

2-6 players, with an adult host | Suggested ages 9-12 | Plan 20-30 minutes

Keep this guide with the adult host. Let the group try before offering hint 1, then hint 2. Read the explanation only when the group is ready to check its work.

Support your group

Draw 30 short marks per basket, or work in groups of six. An adult can perform division while players decide what each number represents. Keep the cost and sale calculations on different lines.

Warm-up: what did the fruit cost?

Hint 1: Calculate each basket separately.

Hint 2: Divide 30 by the number of oranges bought for one token.

Answer: A costs 15 tokens; B costs 10 tokens; total cost is 25.

30/2=15 and 30/3=10. Add costs, not the denominators of the rates.

Round 1: count the sale groups

Hint 1: First count groups, then price the groups.

Hint 2: Compare 24 received with 25 spent.

Answer: 12 groups; 24 tokens received; loss of 1 token.

60/5=12 groups; 12x2=24 tokens. The fruit cost 25, so 24-25=-1.

Round 2: follow both baskets

Hint 1: Track each basket independently.

Hint 2: The last 10 oranges all came from A.

Answer: 10 oranges remain in A; none remain in B. The remaining fruit cost 5 tokens.

Ten groups consume 20 from A and 30 from B. A has 30-20=10 left, bought at 2 per token, so those 10 cost 5.

Final: repair only the last two groups

Hint 1: Find the amount still needed after receiving 20.

Hint 2: Divide the remaining 5 tokens across 2 equal groups.

Answer: 2.5 tokens per final group.

The first 10 groups bring 20 tokens. Recovering the original 25 needs 5 more; split equally across two groups, that is 2.5 each. Charging 2 each would bring only 4.

How to close the session

Finish by explaining the final repair in plain words: equal basket quantities are not the same as selling two oranges from A and three from B in every group.

If a result differs, return to the stated rule and compare the written steps. An answer revealed by the host is help, not an independently solved puzzle.

Mechanism reference: Project Gutenberg 49137, THE COSTERMONGER'S PUZZLE.. New session instructions and examples.

Age and time are planning estimates. No child playtest or physical print trial is claimed.