

1. I would first ask if they knew what cardinal directions were. If they answered "yes" I would go on to explain that left and right were just another way of stating the direction or position of something. If they answered "no" I would ask them how they determine where something is in relation to themselves. I would explain that left and right tell the position or direction in relation to them or another object. For example, if they knew a book was some distance away from them, they could use left or right to tell them which way they would look or walk to retrieve that book. Left would lead them one way and right would lead them the opposite way. I would hope that would be sufficient.
2. I would divide the US/world up into sections. Inside each section I would identify a reliable source to count, record, and return their data back to me. I would then add up each response I receive yielding and accurate number of how many gas stations are in the US/world.
3. If all the baskets are mislabelled then you know that whatever the basket says is untrue. Therefore (for fruits A and B and baskets A, B, and AB):
 - i. If you take fruit A out of a basket labeled as only fruit A, you know that it must actually be the basket AB.
 - ii. If you take a fruit A out of a basket and it labeled as only fruit B, you know that it must either be basket AB or basket A.
 - iii. If you take fruit A out of a basket labeled AB, then you know that it must actually be basket A.

b. Based on these conclusions basket AB would only guarantee the results you can expect. Thus I would pick a fruit out of the basket labeled AB. In doing so I would know that that basket must yield all the same of that fruit A, I just took out.

Therefore for the remaining baskets labeled A and B:

 - i. Basket labeled B must contain fruits A and B
 - ii. Basket labeled A must contain fruit B
4. The grandfather knows how big the table is, so he knows if the length of the table will result in an even or odd area. If the area is odd he will tell Dylan to go first because he will place the last quarter. If the area is even he will tell Dylan to go second because he will place the last quarter.

A handwritten table with multiple rows of numbers and calculations. The table is organized into columns. Some cells contain numbers, while others contain expressions like $x/12+5$, $x/13+3$, and $x/11$. The table appears to be a record of calculations for a problem involving 341 coins.

5. Through trial and error I found which numbers worked for each criterion:
 - a. $x/12+5$
 - b. $x/13+3$
 - c. $x/11$
 - d. The pirates were trying to divvy up 341 coins

6. It can be used in programming machines that do jobs for us. This is useful because the machines can do the mundane tasks, allowing humans to do the complex thought and skills needed for jobs. Though now through AI breakthroughs, robots are getting better at matching human qualities, leading to more available labor and brain power.
7. Code that outputs what you intended consistently and accurately.
8. I have no prior experience in computer science.