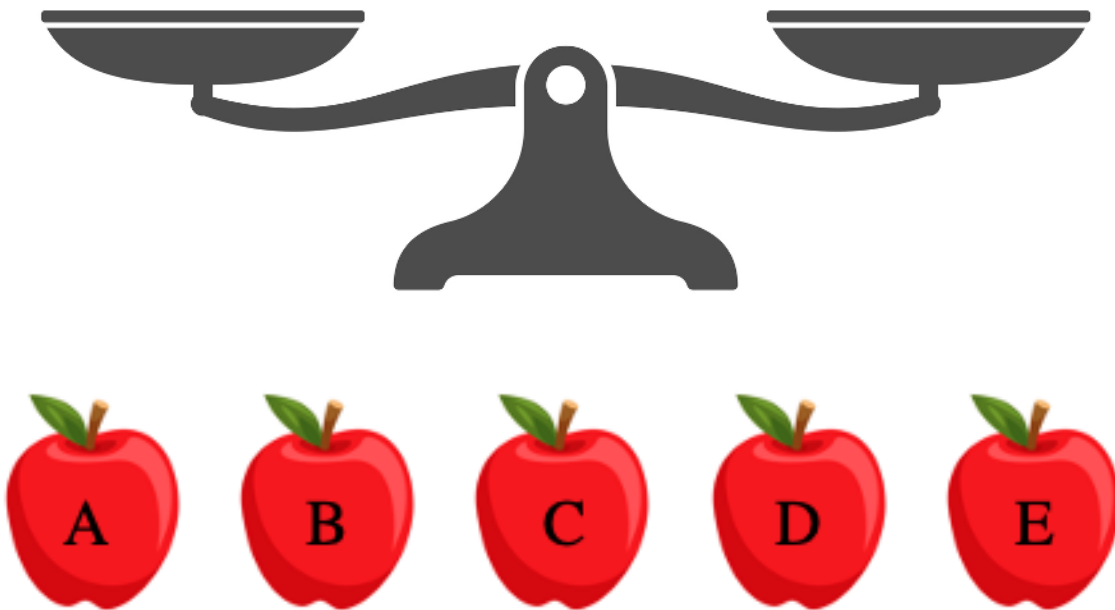


On Balance

Level B

Debbie works at an apple orchard. She knows that every so often there is a bad or rotten apple in the baskets of apples she picks. She wants to spend as little time as possible checking apples. She thinks she knows a fast way to check.

Debbie has five apples. Four apples are good, all weighing the same. But the bad one either weighs more or weighs less than the others. List the process steps and decisions you need to make in order to determine which apple is bad, and whether it is heavier or lighter than the good ones.



You know one of the apples is either heavier or lighter than all the others. Describe the most efficient way to weigh the apples and determine which apple is bad, and whether it is heavier or lighter than the others. Show and justify your solution.

