

Name _____

Data Sheet

Remember to use your data sheet to record both YOUR work and YOUR GROUP work.

Pardon Me?

Three prisoners, Andy, Bob and Calvin, are in separate cells and sentenced to death. The governor has selected one of them at random to be pardoned. The warden knows which one is pardoned, but is not allowed to tell. Prisoner Andy begs the warden to let him know the identity of one of the others who is going to be executed. "If Bob is to be pardoned, give me Calvin's name. If Calvin is to be pardoned, give me Bob's name. And if I'm to be pardoned, flip a coin to decide whether to name Bob or Calvin."

The warden tells Andy that Bob is to be executed. Prisoner Andy is pleased because he believes that his probability of surviving has gone up from $1/3$ to $1/2$, as it is now between him and Calvin. Prisoner Andy secretly tells Calvin the news, who is also pleased, because he reasons that Andy still has a chance of $1/3$ to be the pardoned one, but his chance has gone up to $2/3$. What is the correct answer?

Write-Up Directions

Your write-up is due on Friday, November 2, 2012.

Your Write-Up is 3 paragraphs long and should follow these guidelines:

■ Paragraph One: Problem Statement

- This problem is called _____. It is about _____. I'm supposed to find _____.
- This paragraph is short, but should still contain all the necessary elements to solve the problem. (After reading this paragraph, someone who has never seen the problem should be able to understand what the problem was asking and they should have enough information to solve it.)

■ Paragraph Two: Work Write-Up

- Explain step-by-step, in detail, everything you did **mathematically** to complete your Data Sheet and arrive at your answer. Refer back to your numbered steps on the Data Sheet to help you. Write this as if you were writing a recipe for someone to follow or giving a friend exact directions to your house. Use as many of these transition words as you need to describe each of your math steps: **first, next, then, after that, finally**.
- When reading this paragraph, anyone should be able to follow along with the calculations and arrive at the same answers you give.

■ Paragraph Three: Answer

- My answer is _____. I think my answer makes sense because _____. (*Verify* or *prove* your answer by referring to the math you did. It is **not** enough just to write that you checked it on a calculator, or that you checked it twice, or that a friend or parent or teacher told you so.)
- This paragraph is different from the previous paragraph in that you are now showing that the answer is correct and not explaining what steps you did to arrive at your answer but rather **WHY** you did those steps.