

*Remember, your Data Sheet needs to show YOUR work and YOUR GROUP work.  
The Write-Up for this problem will be due on Friday, 11/2/12.*

**A Piece of Cake**

Caleb has a piece of cake in the shape of an isosceles triangle with a vertex angle of  $26^\circ$  and base angles of  $77^\circ$  each. He wants to share the cake with his friend, Maria. In order to divide it into two equal slices, Maria suggests cutting the cake along the midpoints of the legs of the triangle. Caleb says that he should cut through the midpoint of the base and bisect the  $26^\circ$  angle. Prove whether Caleb or Maria is correct.

Data Sheet:

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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.