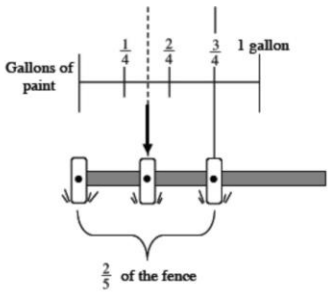
College Preparatory Mathematics Chapter 7 Sample Argumentation Task

7-50. Atticus thinks he has found a clever way to calculate the amount of paint he will need. He explained his thinking to his team like this:

"*If $\frac{3}{4}$ of a gallon of paint covers $\frac{2}{5}$ of the fence, I can **divide** to figure out how much paint I need for $\frac{1}{5}$ of the fence. Once I know how much paint I need for $\frac{1}{5}$ of the fence, I can **multiply** to find out how much I need for the whole fence.*"

Atticus started the diagram at right, but he did not have time to finish it.



a. Ask you teacher for the Lesson 7.2.2 Resource Page, "How Much Paint?" that contains Atticus's diagram. With your team, consider Atticus' reasoning and complete his diagram to show the exact amount of paint he will need.

b. Write a note to Atticus's teammates explaining how his "divide and then multiply" strategy works. What division did he do? Why does it make sense? What multiplication did he do? Why does it make sense?

This sample is a HIGH QUALITY argument task. In this example, the character, Atticus, shares a brief argument that explains his work and claim. Then part b of this problem asks students to write to Atticus and explain whether not his strategy works and how. This is a great opportunity for students to assess somebody else's argument and work on **critiquing the reasoning of others.**

"Atticus thinks he has found a clever way to calculate the amount of paint he will need. *"If 3/4 gallons of paint covers 2/5 of the fence, I can **divide** to figure out how much paint I need for 1/5 of the fence. Once I know how much paint I need for 1/5 of the fence, I can multiply to find out how much I need for the whole fence."* Does Atticus' strategy work? Be sure to support your answer using evidence."