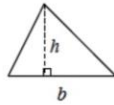


## College Preparatory Mathematics Chapter 6 Sample Argumentation Task

6-66. Problem 6-61 used three different ways to represent the area of a trapezoid with bases  $a$  and  $b$  and height  $h$ .



Sheila wonders if there are different ways to write some of the other formulas she has developed in the chapter. She checked with her class and found that there were at least two ways that the formula for the area of a triangle was written. They are shown below. Are these formulas the same? How do you know?

$$A = bh \div 2 \text{ and } A = \frac{1}{2} bh$$

This sample is a HIGH QUALITY argument task. The problem asks students to use **logic and divergent thinking** as well as algebraic knowledge to assess whether or not two expressions are equivalent. The problem uses a pictorial representation and asks students **how** they know their answer is correct.

"Sheila believes there are two equivalent formulas for finding the area of a triangle,  $bh \div 2$  and  $\frac{1}{2}bh$ . Do you agree with Sheila's claim? Be sure to explain your reasoning."