

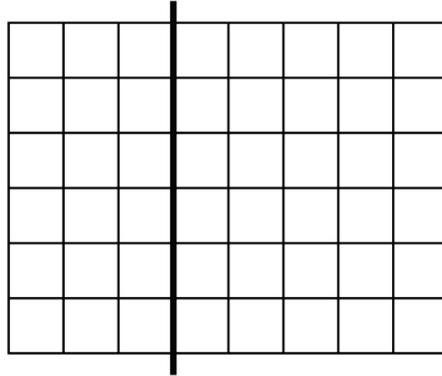
Grade 3 Mathematics Sample ER Item Claim 3



MAT.03.ER.3.000OA.B.235 Claim 3

Sample Item ID:	MAT.03.ER.3.000OA.B.235
Grade:	03
Primary Claim:	Claim 3: Communicating Reasoning Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
Secondary Claim(s):	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Primary Content Domain:	Operations and Algebraic Thinking
Secondary Content Domain(s):	
Assessment Target(s):	3 B: Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. 1 I: Understand concepts of area and relates area to multiplication and to addition.
Standard(s):	3.OA.9
Mathematical Practice(s):	1, 2, 3, 4, 6, 7
DOK:	2
Item Type:	ER
Score Points:	2
Difficulty:	M
Key:	See Sample Top-Score Response.
Stimulus/Source:	
Target-specific attributes (e.g., accessibility issues):	
Notes:	Part of PT set

The large rectangle below is divided into 2 smaller rectangles by a thick black line.



Use words, numbers, and/or pictures to show that the sum of the areas of the two smaller rectangles is equal to the area of the large rectangle.

Sample Top-Score Response:

$6 \times 3 = 18$ and $6 \times 5 = 30$. If I count up all the squares in the large rectangle I get 48, which is $18 + 30$.

Scoring Rubric:

Responses to this item will receive 0–2 points, based on the following:

2 points: The student shows thorough understanding of patterns in arithmetic by relating multiplication to addition while finding areas of rectangles. The student clearly and precisely constructs viable arguments to support reasoning, completely explaining that the sum of the areas of the two smaller rectangles is equal to the area of the large rectangle.

- 1 point:** The student shows partial understanding of patterns in arithmetic by relating multiplication to addition while finding areas of rectangles. The student does not provide a complete explanation (i.e., shows the areas of the two smaller rectangles but does not relate it to the large rectangle; shows the area of the large rectangle but does not relate it to the sum of the areas of the two smaller rectangles; or makes an error in calculation).
- 0 points:** The student shows inconsistent or no understanding of explaining patterns in arithmetic by relating the three expressions of the areas of the rectangles and clearly and precisely constructing viable arguments to support reasoning.