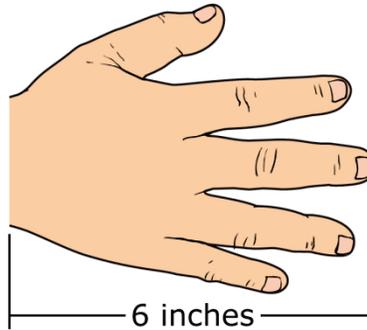


MAT.04.CR.2.000MD.A.434 Claim 2

Sample Item Id:	MAT.04.CR.2.000MD.A.434
Grade:	04
Primary Claim:	Claim 2: Problem Solving Students can solve a range of well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.
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:	Measurement and Data
Secondary Content Domain(S):	Operations and Algebraic Thinking
Assessment Target(S):	2 A: Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace. 2 C: Identify results in the context of a situation. 1 I: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. 1 A: Use the four operations with whole numbers to solve problems.
Standard(S):	4.MD.1, 4.OA.3, 3.OA.7, 2.NBT.4
Mathematical Practice(S):	1, 2, 6, 8
DOK:	2
Item Type:	CR
Score Points:	3
Difficulty:	M
Key:	See Sample Top-Score Response.
Stimulus/Source:	
Target-Specific Attributes (E.G., Accessibility Issues):	
Notes:	Multi-part item

Spencer uses his hand to measure different lengths. He knows that the length of his hand is 6 inches, as shown below.



The table below shows the total number of hand lengths that Spencer used to measure each object.

Measuring Objects

Object	Number of Hand Lengths	Number of Inches	Number of Feet
Computer monitor	4		
Picture frame	6		
Classroom door	16		

Complete the table above. Click in a box and then type the correct number of inches or feet for each number of Spencer's hand lengths.

Use Spencer's measurement to identify each object below that has a length that is greater than 1 yard.

 Computer monitor

 Picture frame

 Classroom door

[Click on each object to select it.]

Sample Top-Score Response:

Measuring Objects

Object	Number of Hand Lengths	Number of Inches	Number of Feet
Computer monitor	4	24	2
Picture frame	6	36	3
Classroom door	16	96	8

Student selects "Classroom door."

 Computer monitor

 Picture frame

 Classroom door

Scoring Rubric:

Responses to this item will receive 0-3 points, based on the following:

- 3 points:** The student has a thorough understanding of converting measurement units within one system of units. The student completed the conversion table without error and chose "Classroom door" as the only object with a length that is greater than 1 yard.
- 2 points:** The student has a good understanding of converting measurement units within one system of units. The student completed the conversion table with an error made with one object (the error may be carried through on that single row) and chose "Classroom door" as the only object with a length that is greater than 1 yard. **OR** The student made no errors in the table conversions, but identified the picture frame incorrectly (not paying attention to "greater than" 1 yard).
- 1 point:** The student has a partial understanding of converting measurement units within one system of units. The student was only able to convert hands to inches in the table, but not to yards. **OR** The student made the same error consistently in converting hands to inches (e.g., multiplies each hand length by 12 instead of 6), but correctly converted inches to yards for at least two of the objects. **OR** The student correctly converted only one row of the table and chose "Classroom door" in the last part.
- 0 points:** The student has a limited or no understanding of converting measurement units within one system of units. The student did not complete any part of the table correctly. Without correct conversions in the table, answering "Classroom door" is not enough to earn any points.