

# NWEA Assessment Item Illustrating 5.MD.A.1

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**Domain:** Measurement and Data

**5.MD.A:** Convert like measurement units within a given measurement system.

**Calculator Availability:** No

How many meters are equal to 25 centimeters? Enter the answer in the box.

25 centimeters =  meters

**Alignment: 5.MD.A.1:** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

In this item, students convert from a smaller unit to a larger unit. Students who understand the relationship between metric units will know that converting from a smaller unit to a larger unit means there are fewer of the larger unit.

**Coherence:** Students began measuring with standard units in grade 2.<sup>2.MD.A</sup> They also explored how the measurement of an item related to the size of a unit by measuring the same object with different units.<sup>2.MD.A.2</sup> The conversion expected in 5.MD.A.1 directly builds upon the work students did in grade 4 when they began converting larger units to smaller units within the same system and applied this to solving problems.<sup>4.MD.A.1, 4.MD.A.2</sup> This standard is intended to support the decimal place value work of the Number and Operations in Base Ten domain, particularly where students perform operations with decimals to hundredths. Applying the base-ten structure of the metric system to convert units reinforces the place value relationships within the base-ten system. In grade 5, conversion is extended to include converting from a smaller unit to a larger unit, which supports students' work with decimal place value in the Number and Operations in Base Ten domain. Expressing measurements in terms of larger or smaller units prepares students for the work they will do in grade 6 with ratios.<sup>6.RP.A.3d</sup>

**Rigor:** This item attends to conceptual understanding and procedural skill. Students use their conceptual understanding of the relationship between measurement units to convert from centimeters to meters. The actual conversion represents a grade-level procedure.

**Answer Key:**

How many meters are equal to 25 centimeters? Enter the answer in the box.

25 centimeters =  meters

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