**Grade 5 Standard, Task, and Scoring Guide for RICAS Mathematics: Calibrating Expectations Using Existing Student Work Samples**

(Updated 1/26/22)

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| **5.MD.A.01 -** 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. |

**This question has three parts.**

Ben walked a distance of 1.2 kilometers. Alice walked a distance of 0.85 kilometer. Walter walked a distance of 50 **meters**.

**Part A**

What is the distance, in meters, that Ben walked? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

**Part B**

How many more meters did Ben walk than Alice walked? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

**Part C**

What is the total distance, in **kilometers**, that Ben, Alice, and Walter walked? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

**Scoring Guide**

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| **Score** | **Description** |
| **[4](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153939)** | The student response demonstrates an exemplary understanding of the Measurement and Data concepts involved in converting among different-sized standard measurement units within a given system of measurement and using these conversions in solving multi-step, real-world problems. The student correctly converts distances in the metric system and solves multi-step, real-world problems using the conversions. |
| [**4**](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153940) |
| **[3](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153938)** | The student response demonstrates a good understanding of the Measurement and Data concepts involved in converting among different-sized standard measurement units within a given system of measurement and using these conversions in solving multi-step, real-world problems. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result the response merits 3 points. |
| [**2**](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153937) | The student response demonstrates a fair understanding of the Measurement and Data concepts involved in converting among different-sized standard measurement units within a given system of measurement and using these conversions in solving multi-step, real-world problems. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 2 points. |
| [**1**](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153936) | The student response demonstrates a minimal understanding of the Measurement and Data concepts involved in converting among different-sized standard measurement units within a given system of measurement and using these conversions in solving multi-step, real-world problems. |
| [**0**](https://www.doe.mass.edu/mcas/student/2018/answer.aspx?QuestionID=60541&AnswerID=153935) | The student response contains insufficient evidence of an understanding of the Measurement and Data concepts involved in converting among different-sized standard measurement units within a given system of measurement and using these conversions in solving multi-step, real-world problems to merit any points. |