

NWEA Assessment Item Illustrating 3.MD.A.1

© 2020 NWEA (EXCEPT FOR COMMON CORE STATE STANDARDS © 2010 NATIONAL GOVERNORS ASSOCIATION CENTER FOR BEST PRACTICES AND COUNCIL OF CHIEF STATE SCHOOL OFFICERS). ALL RIGHTS RESERVED. USED WITH PERMISSION FROM NWEA; VISIT <https://www.nwea.org/> FOR TERMS OF USE.

Domain: Measurement and Data

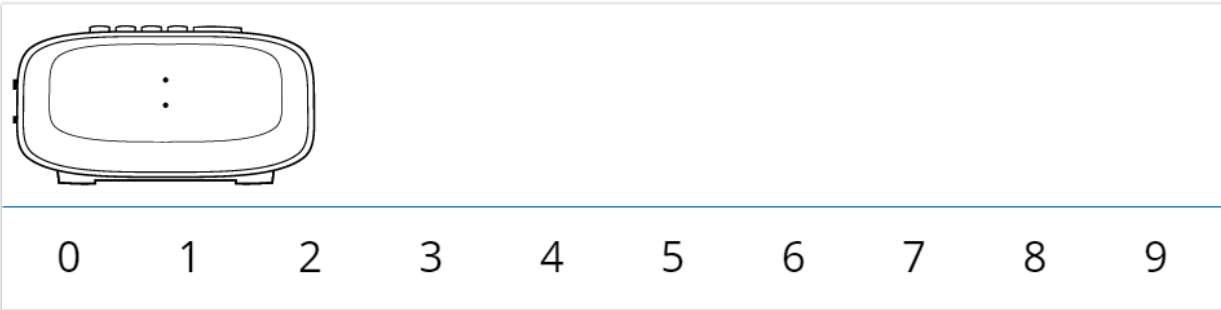
3.MD.A: Solve problems involving measurement and estimation.

Calculator Availability: No

Use the clock to answer the question.

Maria needs to arrive at the skating rink at 2:00 P.M. It takes her 56 minutes to bike there.

What is the latest time Maria can leave home to arrive on time at 2:00 P.M.? Move digits to the clock to show the time she must leave.



The image shows a digital clock interface. At the top, there is a dark blue header with the text "Use the clock to answer the question." Below this is a light blue box containing the problem text: "Maria needs to arrive at the skating rink at 2:00 P.M. It takes her 56 minutes to bike there." and "What is the latest time Maria can leave home to arrive on time at 2:00 P.M.? Move digits to the clock to show the time she must leave." Below the text is a digital clock display. The clock face is a rounded rectangle with two dots in the center. Below the clock face is a horizontal row of ten digits from 0 to 9, each in its own square box, intended for the user to drag and place on the clock display.

Alignment: 3.MD.A.1: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

This item attends to the second part of the standard, in which students solve problems involving elapsed time. Solving elapsed time problems requires students to convert between hours and minutes and to interpret the subtraction that they do to solve the problem into a specific time on a clock. In order to complete the problem, students must understand that there are 60 minutes in one hour and then subtract 56 from 60. They must then understand that the difference, 4, indicates the number of minutes after 1 P.M., so Maria needs to leave by 1:04 P.M. Placing the time onto a digital clock requires understanding of how to represent the time. The item has the trip to the skating rink take 56 minutes so as to require students to tell time to the nearest minute, as specified in the standard.

Coherence: Students began learning to tell time to the hour and half hour in grade 1.^{1.MD.B.3} In grade 2, they told time to the nearest five minutes.^{2.MD.C.7} Grade 3 is the culmination of the work that students do in learning to tell time, as they learn to tell time to the nearest minute. The work students do when solving elapsed-time problems supports the problem solving they do in the grade 3 Operations and Algebraic Thinking domain and provides an opportunity for them to continue to work with number lines.


Rigor: This item attends to conceptual understanding, procedural skill, and application of mathematics in a real-world setting. The conceptual understanding that there are 60 minutes in 1 hour is required to determine the answer. Because of the item's conceptual and application rigor, it is appropriate that the required procedural skill is not overly rigorous.

Answer Key: There are multiple equivalent correct responses. One sample correct response is shown.

Use the clock to answer the question.

Maria needs to arrive at the skating rink at 2:00 P.M. It takes her 56 minutes to bike there.

What is the latest time Maria can leave home to arrive on time at 2:00 P.M.? Move digits to the clock to show the time she must leave.



0 1 2 3 4 5 6 7 8 9

Learn More

Learn more with the [Math Assessment Item Alignment Professional Development Modules](#).

All content linked to within this resource was free for use when this resource was published in August 2020. Over time, the organizations that manage that external content may move or remove it or change the permissions. If the content is no longer available, please email info@studentsachieve.net.