

NWEA Assessment Item Illustrating 5.NBT.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.

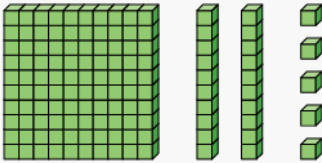
Domain: Number and Operations in Base Ten

5.NBT.A: Understand the place value system.

Calculator Availability: No

Use the information to answer the question.

The number represented by the model is different depending on which block represents 1.



Based on which block represents 1, what number does the model represent? Enter the answers in the boxes.

Smallest block represents 1:

Largest block represents 1:

Alignment: 5.NBT.A.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left.

This standard is about generalizing place value relationships in any multi-digit number, including decimals. In this item, students apply their understanding of the structure of the base-ten system to assign value based on which unit is defined as 1. The concept that the largest block, which is composed of 10 rows of 10 smaller blocks, can represent 1 is important to understanding the relationship between whole numbers and decimals.

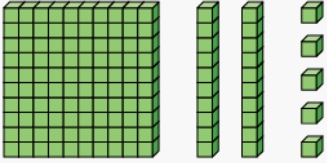
Coherence: Students began exploring place value in kindergarten by composing and decomposing numbers from 11 to 19 into tens and ones.^{K.NBT.A.1} In grades 1 and 2, students developed understanding of place value relationships in two-digit^{1.NBT.B} and three-digit numbers.^{2.NBT.A} In grade 4, students explicitly examined the relationship between the value of a digit in one place and the value of the same digit one place to the right. Students build upon this concept in grade 5 by exploring the relationship between adjacent places to both the right and the left, including decimal place values. In grade 6, students will extend their understanding to include positive and negative integers and rational numbers.^{6.NS.C}

Rigor: This item attends to conceptual understanding. Students reason about the relationship between the components of the model based on which component represents 1.

Answer Key:

Use the information to answer the question.

The number represented by the model is different depending on which block represents 1.



Based on which block represents 1, what number does the model represent? Enter the answers in the boxes.

Smallest block represents 1:

Largest block represents 1:

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.