

NWEA Assessment Item Illustrating 1.NBT.B.2

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Domain: Number and Operations in Base Ten

1.NBT.B: Understand place value.

Calculator Availability: No



How many ones and tens are in 49? Move a number to each line to show the answer.

There are ___ ones and ___ tens in 49.

0	1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90	100

Alignment: 1.NBT.B.2: Understand that the two digits of a two-digit number represent amounts of tens and ones.

In this item, students identify the value of each digit in a two-digit number. The item is intentionally structured so that students are asked about ones before tens. This helps ensure that they are thinking about place value and not just putting the numbers in the order they appear in the item. Understanding the place value of digits in the tens and ones positions is a key to the development of grade 1 number sense. Students learn that the digits in a two-digit number represent a certain number of tens and a certain number of ones. This parent standard brings together child standard understandings of unitizing or composing using tens as a unit as well as using multiples of tens as a unit.

Coherence: Understanding place value is a crucial area of focus throughout the K–5 math standards. In kindergarten, students focused on making 10 and learned to decompose numbers less than 10.^{K.OA.A.3} They also learned to compose and decompose numbers from 11 to 19 as 10 ones and some more ones.^{K.NBT.A.1} In grade 2, students will focus on making 100 and understanding the value of the digits in each place in a three-digit number.^{2.NBT.A.1} Place value understanding in K–2 also supports the work that students do with addition and subtraction, particularly when they compose ones as tens, tens as hundreds, etc.^{1.NBT.C, 2.NBT.B} In grades 3–5, students will develop an even more sophisticated understanding of place value as they work with multi-digit whole numbers. They will learn that the value of a digit in a place is 10 times the value of the digit to the place on its right^{4.NBT.A.1} and that the value of a digit in a place is one-tenth times the value of the digit to the place on its left.^{5.NBT.A.1} Students in grades 3–5 use this place value understanding as they learn to calculate with multi-digit whole numbers.^{3.NBT.A, 4.NBT.B, 5.NBT.B}

Rigor: This item attends to conceptual understanding because students must understand the value and position of each digit in a two-digit number.

Answer Key:

How many ones and tens are in 49? Move a number to each line to show the answer.

There are 9 ones and 4 tens in 49.

0	1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90	100

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