

NWEA Assessment Item Illustrating 4.NF.C.5

© 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—Fractions

4.NF.C: Understand decimal notation for fractions, and compare decimal fractions.

Calculator Availability: No

Move a fraction to each box to make the equation true.

$$\frac{4}{10} + \frac{30}{100} = \frac{4}{10} + \boxed{\phantom{\frac{3}{10}}} = \boxed{\phantom{\frac{7}{10}}}$$

$\frac{30}{100}$ $\frac{3}{100}$ $\frac{3}{10}$ $\frac{43}{10}$ $\frac{7}{100}$ $\frac{7}{10}$

Alignment: 4.NF.C.5: Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.

This standard is students' first introduction to adding fractions with unlike denominators. This standard is also when students are introduced to the idea of decimal fractions, or fractions that can be represented as tenths or hundredths.

Coherence: Students began working with equivalent fractions in grade 3.^{3.NF.A} In grade 4, students are finding equivalent fractions and using equivalent fractions to understand decimal fractions.^{4.NF.A.1} Decimal fractions extend the work that students did with place value in grade 1, grade 2, and grade 3.^{1.NBT.A.2, 2.NBT.A.1, 3.NBT.A} Decimal fractions also prepare students for the work that they will do with decimals in grade 5. In grade 5, students will learn about decimal place value^{5.NBT.A} and will perform multi-digit arithmetic with decimals.^{5.NBT.B}

Rigor: This item attends to conceptual understanding and procedural skill. Students need to understand how equivalent fractions can be used to support addition. The calculations that students will do to generate an equivalent fraction and to add the fractions are both grade-level procedural skills.

Answer Key:

Move a fraction to each box to make the equation true.

$$\frac{4}{10} + \frac{30}{100} = \frac{4}{10} + \boxed{\frac{3}{10}} = \boxed{\frac{7}{10}}$$

$\frac{30}{100}$ $\frac{3}{100}$ $\frac{43}{10}$ $\frac{7}{100}$

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.