

Eureka Acceleration Tool: Grade 5

Module 1, Topic C

To become mathematically proficient, students **must** access on-grade-level content. This document aims to help teachers who use the Eureka curriculum to ensure readiness for students before and during on-grade-level work, creating opportunities for timely support directly connected to the new learning.

About this Topic

Focus Standards:

5.NBT.A.4: Use place value understanding to round decimals to any place.

Topic Overview per the Eureka Curriculum

In Topic C, students generalize their knowledge of rounding whole numbers to round decimal numbers to any place. In Grades 3 and 4, vertical number lines provided a platform for students to round whole numbers to any place. In Grade 5, vertical number lines again provide support for students to make use of patterns in the base ten system, allowing knowledge of whole-number rounding (**4.NBT.3**) to be easily applied to rounding decimal values (**5.NBT.4**). The vertical number line is used initially to find more than or less than halfway between multiples of decimal units. In these lessons, students are encouraged to reason more abstractly as they use place value understanding to approximate by using nearest multiples.

Naming those nearest multiples is an application of flexibly naming decimals using like place value units. To round 3.85 to the nearest tenth, students find the nearest multiples, 3.80 (38 tenths 0 hundredths) and 3.9 (39 tenths 0 hundredths), and then decide that 3.85 (38 tenths 5 hundredths) is exactly halfway between and, therefore, must be rounded up to 3.9.

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Overview

Eureka Acceleration Tools include:

1. a diagnostic assessment to help teachers determine the misunderstandings or gaps in mathematical knowledge related to a specific Topic in the Eureka curriculum
2. guidance for teachers to analyze student work on the diagnostic assessment
3. suggested materials for targeted remedial instruction

Note: The use of this guidance is not intended to delay students' engagement with on-grade-level learning. On-grade-level learning should be the focus of instructional time and be treated as an opportunity for students to "finish" learning previous skills and deepen conceptual understanding.

Diagnostic Assessment

The diagnostic assessment is designed to be administered to targeted students prior to beginning instruction on the given Topic. When appropriate, it is broken into parts (Part A, Part B, and so on); each part addresses a different prerequisite standard and contains three problems. If a student correctly answers at least 2 out of the 3 problems, it can be assumed that he/she is ready to engage with the new content of the Topic with little to no support needed prior to engaging with the Topic. The diagnostic assessment is designed in this way so that teachers can determine the "entry point" to remedial instruction and/or opportunities for unfinished learning within the context of the new learning. The entry points and opportunities for unfinished learning will vary between students.

Guidance for Acceleration

The Acceleration Guidance is designed for teacher use. It is also broken into parts (Part A, Part B, and so on) and correlates to the parts on the diagnostic assessment. Each part contains the following:

1. **The focus standard:** The focus standards are strategically chosen to address prerequisite skills and are purposefully arranged in the order that students typically master the skills and knowledge.
2. **Why this is important for current grade level work:** This section describes how the work of the prerequisite standard relates to the standard(s) addressed in the Topic of instruction.
3. **Using the diagnostic assessment to identify gaps:** This section identifies common errors students make on the diagnostic assessment items.
4. **Acceleration Resources for Targeted Instruction:** The resources pinpoint specific Eureka lessons and parts of lessons for teachers to use to address gaps in mathematical knowledge. Using Eureka materials to address acceleration ensures alignment to the standards, consistency in approach to learning, and similarities in strategies for solving problems.

Diagnostic Assessment: Grade 5 Eureka Module 1, Topic C

Part A: 4.NBT.A.3

1. Round 67,942 to the nearest ten thousands place.
2. Round 42,724 to the nearest hundreds place.
3. Round 127,649 to the nearest thousands place.

Diagnostic Assessment Key: Grade 5 Eureka Module 1, Topic B

Solutions:

1. 70,000
2. 42,700
3. 128,000

Acceleration Guidance: Grade 5 Eureka Module 1, Topic C

Part A Focus: 4.NBT.A.3 Use place value understanding to round multi-digit whole numbers, less than or equal to 1,000,000, to any place

Why this is important for current grade level work: This standard calls for students to use place value understanding to round whole numbers. In fifth grade, students extend their knowledge to include rounding decimals to any place. Students might use a number line to show benchmark numbers, as learned in previous grades. Look for students who understand the concept of rounding, but may round to the incorrect place. The most important look-fors here are the accuracy of the student’s answer.			Acceleration Resources for Targeted Instruction: <u>4th Grade, Module 1, Topic C, Lessons 7 - 10</u> Use the Concept Development portion of each Lesson and a sampling of problems from the Problem Set that focus on fluently subtracting multi-digit numbers.		
Using the Diagnostic Assessment to identify gaps: <table><tr><td>Problem 1 Some students may have the misconception that rounding means replacing all other digits in the number with zeros, which would lead to the answer of 60,000. This shows the student knows place value, but lacks an understanding of rounding.</td><td>Problem 2 Look for students who mistakenly apply the rule for “rounding down” and lower the value of the digit in the hundreds place. This would result in an answer of 42,600 or 42,624, and shows a gap in their fundamental understanding of rounding.</td><td>Problem 3 Look for students who mistakenly apply the rule for “rounding up” and raises the value of the digit in the thousands place. This would result in an answer of 128,649, and shows a gap in their fundamental understanding of rounding.</td></tr></table>				Problem 1 Some students may have the misconception that rounding means replacing all other digits in the number with zeros, which would lead to the answer of 60,000. This shows the student knows place value, but lacks an understanding of rounding.	Problem 2 Look for students who mistakenly apply the rule for “rounding down” and lower the value of the digit in the hundreds place. This would result in an answer of 42,600 or 42,624, and shows a gap in their fundamental understanding of rounding.
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