Standards INSTITUTE

Rigor

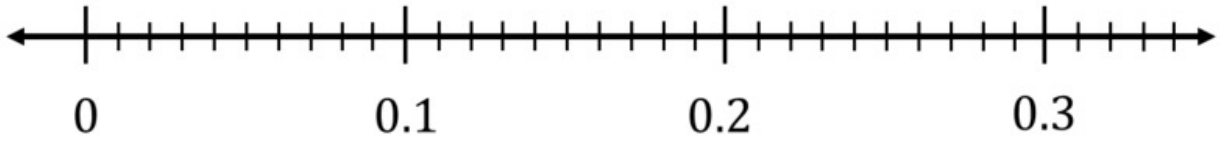
Task Handout, Grade 5

"A social justice priority in mathematics education is to openly challenge deficit thinking and the institutional tools and practices that perpetuate static views about children and their mathematics competencies. Eliminating the deficit discourse by focusing on learning rather than labels is a key step toward a more just and equitable mathematics education." —*National Council of Supervisors of Mathematics and TODOS: Mathematics for All*

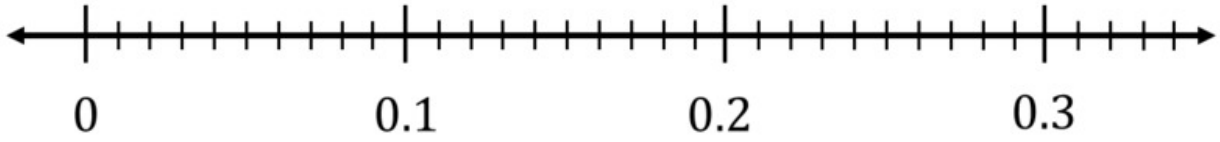
Conceptual Understanding Task #1

Task

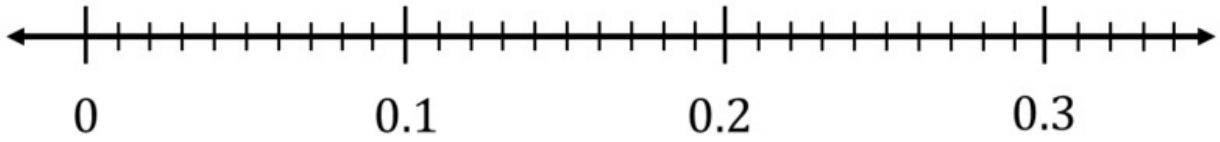
a. Which is greater, 0.1 or 0.01? Show the comparison on the number line.



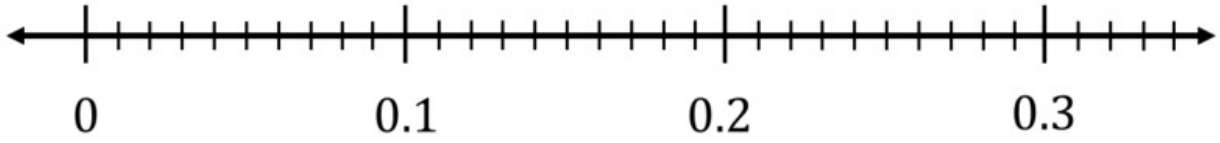
b. Which is greater, 0.2 or 0.03? Show the comparison on the number line.



c. Which is greater, 0.12 or 0.21? Show the comparison on the number line.



d. Which is greater, 0.13 or 0.031? Show the comparison on the number line.



Conceptual Understanding Task #2

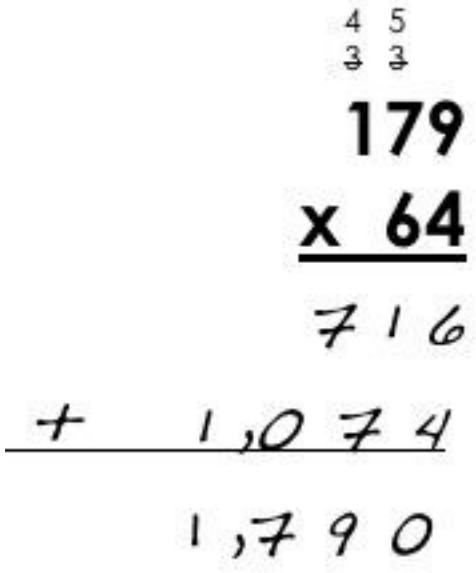
Task

Historians estimate that there were about 7 million people on the earth in 4,000 BCE. Now there are about 7 billion! We write 7 million as 7,000,000. We write 7 billion as 7,000,000,000. How many times more people are there on the earth now than there were in 4,000 BCE?

Procedural Skills and Fluency Task #1

Task

This is Elmer's work on a multiplication problem:



a. Use estimation to explain why Elmer's answer is not reasonable.

b. What error do you think Elmer made? Why do you think he made that error?

c. Find 179 × 64 using a correct version of Elmer's method. Then show another way of doing it to help Elmer see why your answer is correct.

Procedural Skills and Fluency Task #2

Solve using the standard algorithm.

a. 0.3 + 0.82 = _____	b. 1.03 + 0.08 = _____
c. 7.3 + 2.8 = _____	d. 57.03 + 2.08 = _____
e. 62.573 + 4.328 = _____	f. 85.703 + 12.197 = _____

Application Task #1

Task

Alisa had ½ a liter of juice in a bottle. She drank ¾ of the juice that was in the bottle. How many liters of juice did she drink?

Application Task #2

Task

Carolina's Banana Pudding Recipe
2 cups sour cream
5 cups whipped cream
3 cups vanilla pudding mix
4 cups milk
8 bananas

Carolina is making her special banana pudding recipe. She is looking for her cup measure, but can only find her quarter cup measure.

a. How many quarter cups does she need for the sour cream? Draw a picture to illustrate your solution, and write an equation that represents the situation.

b. How many quarter cups does she need for the milk? Draw a picture to illustrate your solution, and write an equation that represents the situation.

c. Carolina does not remember in what order she added the ingredients but the last ingredient added required 12 quarter cups. What was the last ingredient Carolina added to the pudding? Draw a picture to illustrate your solution, and write an equation that represents the situation.