Diagnostic TASK

FOCUS
Understand Numbers
- Key Understanding 7

Decimal Numbers

Years/Grades 6–7

Purpose

To find out whether students know the meaning of zeros in decimal numbers and the relationship between decimal numbers and fractions.

Producing work samples

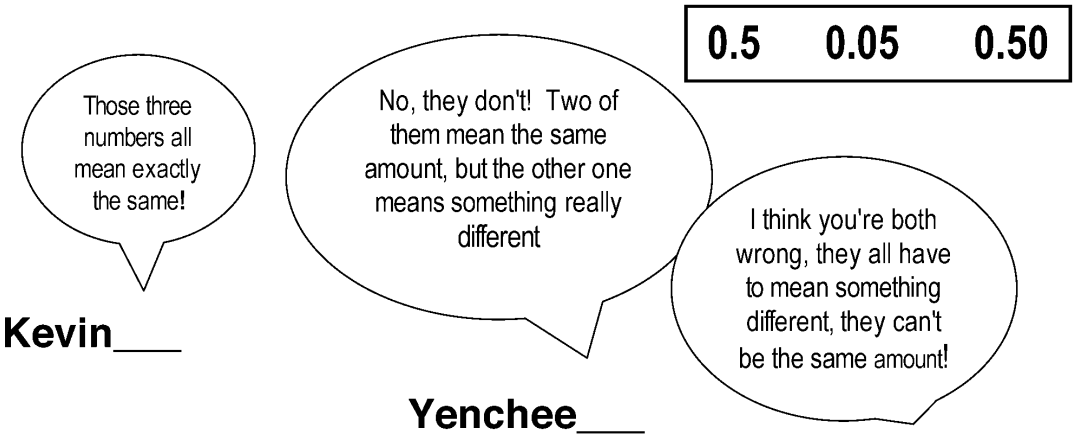
Whole class or small group activity

Distribute the worksheet and ask students to write a full explanation of their reasons for each of their answers. Read through the task with the students and if necessary answer student's questions to clarify the task. Be careful to clearly paraphrase the question rather than providing hints of how to go about the task. After students have completed the sheet, you may need to conduct some individual interviews where their reasoning is not clear from the written explanations.

Name _____ Year/Grade _____ Date _____

Decimal Numbers

Kevin, Yenchee and Marie looked on the board in the next classroom and saw:



Who do you think is right? (Tick which one)

Explain what the numbers mean and say how they are the same or different. (If you like you can use diagrams to help explain.)

0.5

0.05

0.50

Corey said 0.5 is $\boxed{\frac{1}{2}}$ (written as a simple or unit fraction).

So how would you write 0.05 as a simple (or unit) fraction? ☐

What about 0.50? ☐ And 0.005? ☐

Explain how you worked out these fractions.

From: Tomazos, D., 2002, *Knowing What They Know*, Department of Education, Western Australia, East Perth