



Dividing to Give Decimals Teaching Ideas

Learning Objective: To be able to divide with integers to give decimal answers.

- Success Criteria:**
- To recognise that when a division results in a remainder, the answer can also be given in decimal form.
 - To be able to divide integers by integers to give decimal answers.
 - To be able to solve problems involving division of whole numbers to give decimals.

Context: This is the 9th lesson in the four operations scheme of work. The scheme looks first at positive numbers (integers then decimals) then negative numbers. Students should now have a good understanding of place value. They should also be familiar with dividing integers by single-digit divisors to give integer answers. Some students may be able to divide by integers greater than 10.

Starter

Remainder or Decimal?

Explain to students that when a number is divided by another number which is not a factor of it, the answer can be given as a whole number with a remainder or as a decimal. Get them to think about which is the most appropriate form when solving various different worded problems.

Main Activities

Dividing to Give Decimal Remainders

Show students how to use the bus stop method with a decimal point and zeroes added to the dividend. Reinforce that the method is broadly the same as for dividing numbers where the answer is not a decimal and that the decimal point should be copied onto the answer line. Have students attempt the given examples independently.

Activity Sheet

Have students complete this independently. An [answer sheet](#) is provided. The questions become more difficult as the sheet progresses and there are some worded problems at the end.

Plenary

Division Bingo

Get the students to write out 6 of the numbers from the slide. Call out the calculations on the accompanying sheet in a mixed-up order until a pupil calls "Bingo!". This student is the winner.