



## 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.