

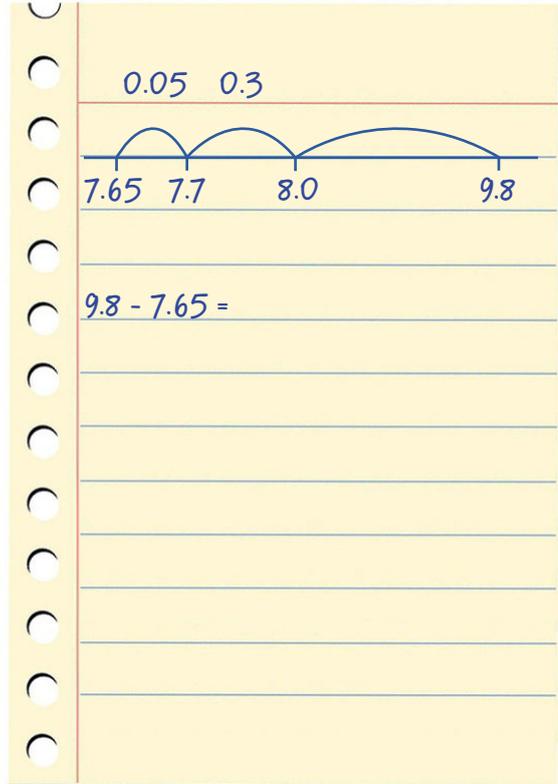
Investigation

Decimal differences

1. Use counting up to work out $9.8 - 7.65$. Keep a note of both the subtraction and the answer.
2. Now work out $8.7 - 6.54$. Keep a note of the subtraction and your answer.
3. Carry on this pattern of subtractions, $7.6 - 5.43$, $6.5 - 4.32$, $5.4 - 3.21$, making a record of all your subtractions and their answers.

Can you predict the answer to the next subtraction?
Why do you think the sequence of subtractions gives such a pattern?

4. Now try $12.3 - 4.56$
 $23.4 - 5.67$
 $34.5 - 6.78$ and so on.



What happens this time? This is a harder pattern to explain!
Look at how the whole number parts of the pair of numbers in each subtraction are increasing, and then how the decimal parts are increasing.

Investigate your own sequences of subtractions with consecutive digits, e.g. $9.87 - 6.5$
 $8.76 - 5.4$
 $7.65 - 4.5$

For this sequence, you can use place value to subtract rather than counting up.
See what other patterns you can find. Why do you think they occur?