

Mathematics Department Workshops

Topic: Place Value

Resource Sheet HT2.PLV.7

Divide the class into pairs of learners.

Create sets of cards like the ones shown in **HT2.PLV.7.1**. The digits used for each number should be the same and the position of the digits ought to be the same, but the decimal point ought to vary. You might also vary the number of sets you use for each pair depending on how much practice you want the learners to experience.

The ones illustrated use the digits 1, 2, 3 and 4 and a decimal point in a variety of places.

Each pair of learners is given a set of number cards and turns them over in turn. They stick the card they turn over on to a large sheet of paper and leave a gap between any two number cards. In the gap the learners have to write, in turn, on the large sheet an operation that connects the two numbers.

For the first round you might limit the learners to only using multiplication to connect the numbers, so if the two cards turned over were

1234

1.234

The cards have to be connected by a multiplication which the learners write on to the paper.

1234

× 0.001

1.234

If the cards were selected in this order

12.34

1234

then the operation would be a multiplication by 100.

The aim is for each player to be able to make a successful connection until all the cards are used.

A possible sequence might be

1234

× 0.001

1.234

× 10

12.34

× 100

1234

After the learners have gone through the set of numbers using multiplication, then they may be asked to only use division.

You can vary the requirements as you wish to connect the numbers together, depending on the topic that you want to practice. For example you may limit the multiplication to be by a number less than one, or a negative power of 10, or division by a number less than one, depending on how challenging you want the task to be.

HT2.PLV.7.1

1.234	1.234	1.234
12.34	12.34	12.34
123.4	123.4	123.4
1234	1234	1234
0.1234	0.1234	0.1234
0.01234	0.01234	0.01234
0.001234	0.001234	0.001234