Decimals with 3 decimal places

1. Tim says that the following statement is true:
   $4.51 < 4.451$
   Is he right? Can you explain his reasoning?

2. 4.15 is the same as 3 ones, 11 tenths and 5 hundredths.
   Do you agree?
   Can you find other ways of partitioning this number?

3. Shona says that when she adds one tenth to 4.912, she gets 5.112.
   Is she right?

4. What do you need to subtract from 10.045 to get 10.005?

5. Josh is 138.4cm tall.
   Maddie is 1.41m tall.
   Who is the tallest?

6. Jim needs to change 56.1 into 0.561 by dividing. What will he need to divide by?

7. Lucy says that multiplying by 10 is easy. All you have to do is add a zero to the end of the number. Is she right?

8. Alice put 3.45 into a place value grid. She moved each digit one place to the right. What was her final answer? What operation had been performed?

9. Find a path from 7 to 0.7

7	× 10	÷ 10
÷ 10	× 10	÷ 100
× 100	÷ 1000	0.7

10. Find a path from 0.51 to 51

0.51	÷ 100	÷ 10
÷ 10	× 10	÷ 100
× 100	× 10	51

11. Try to make the answer 80. Begin with a number in the first box, use an operation from the second box, and use a number from the third box. How many ways can you find?

800	×	**0.1**
8	÷	**10**
0.8		**100**
0.08		**1000**

Decimals with 3 decimal places - ANSWERS

1. Tim is wrong. He is probably comparing 51 and 451. But 5 tenths is bigger than 4 tenths.

2. 4 ones, 1 tenth, 5 hundredths
   3 ones, 11 tenths, 5 hundredths
   2 ones, 21 tenths, 5 hundredths etc
   4 ones, 15 hundredths etc

3. Shona is wrong. The answer is 5.012

4. 4 hundredths

5. Josh is 138.4cm or 1.384m
   Maddie is 141cm or 1.41m
   Maddie is tallest

6. He needs to divide by 100

7. This method only works with whole numbers and not decimals. You need to move the digits one place to the left.

8. Her answer was 0.345.
   She divided by 10.

9.

7	× 10	÷ 10
÷ 10	× 10	÷ 100
× 100	÷ 1000	0.7

10.

0.51	÷ 100	÷ 10
÷ 10	× 10	÷ 100
× 100	× 10	51

11.
$800 \div 10 = 80$
$800 \times 0.1 = 80$
$8 \times 10 = 80$
$8 \div 0.1 = 80$
$0.8 \times 100 = 80$
$0.08 \times 1000 = 80$