

How to order decimals
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Here are some hints and tips to help with ordering decimal fractions.

Having the decimal point in numbers somehow seems to make it harder to order them.

Starting with the smallest, let's look at these 5 numbers:

1.3 0.13 1.03 1.003 0.31

The first thing to do is look at the whole units, that is, the digit to the left of the decimal point.

There are 3 numbers with a 1 in the units so they must all be bigger than the two numbers with zero in the units.

Compare the two numbers with zero: 0.13 and 0.31 and see which has the smaller digit in the tenths column (first digit to the right of the decimal point). That is 0.13, so 0.13 is our smallest number.

Write that down and put a thin line through it on the list:

1.3 ~~0.13~~ 1.03 1.003 0.31

The next smallest must be the other number with a zero in the units, 0.31, so write that next to the 0.13 and cross it off the list.

1.3 ~~0.13~~ 1.03 1.003 ~~0.31~~

It is now easier to compare the three other numbers. They all have a 1 in the units so we need to look at the tenths. Two numbers have a zero in the tenths so one of these must be the next smallest: 1.03 or 1.003. Look at the hundredths column and you can see that 1.003 has a zero and 1.03 has a 3 so 1.003 must be the next smallest. Again write it down and cross it off the list.

1.3 ~~0.13~~ 1.03 ~~1.003~~ ~~0.31~~

It is now easy to finish with the next two numbers, being 1.03 and finally the largest 1.3. Cross them off and write them down.

1.3 ~~0.13~~ ~~1.03~~ ~~1.003~~ ~~0.31~~

0.13 0.31 1.003 1.03 1.3

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Try finding which of these pairs of numbers is the smaller.

1. 0.012 or 0.12

2. 1.056 or 1.06

3. 3.510 or 3.105

4. 0.024 or 0.203

5. 7.011 or 7.001

6. 6.356 or 6.365



Now try putting these sets of numbers in order, starting with the smallest.

7. 0.123 0.321 0.312 0.231 0.132

8. 2.345 3.245 3.524 2.435 2.543

9. 2.01 0.21 2.10 1.20 0.12

10. 6.78 6.87 6.078 7.068 7.608

Answers

1. 0.012 2. 1.056 3. 3.105
4. 0.024 5. 7.001 6. 6.356
7. 0.123 0.132 0.231 0.312 0.321
8. 2.345 2.435 2.543 3.245 3.524
9. 0.12 0.21 1.20 2.01 2.10
10. 6.078 6.78 6.87 7.068 7.608