

Comparing Decimals

Review. Which is greater, 4506 or 4606? How do you know?
Which is greater, 4512 or 4562? How can you tell?
Which is greater, 4603 or 4478? How can you tell?

Challenge. How well can you do on comparing decimal numbers?

5.6 5.2 5.02 5.2 4.1 4.03 0.16 0.017
0.09 0.1 0.4 0.13 4.7 4.70 1.09 1.9

Decimals are compared in exactly the same way as other numbers: by comparing the different place values from left to right. To help in that, you can write the two numbers into the place value tables on top of each other. Then compare the different place values in the two numbers from left to right, starting from the biggest place value.

7.3 7.03

7	.3	
7	.0	3
T	O	te hu

The two numbers have the same amount of ones. The first number has more tenths than the second, so the first number is bigger.

3.01 3.1

3	.0	1
3	.1	
T	O	te hu

Now the two numbers have the same amount of ones. The second number has more tenths than the first, so 3.1 is bigger.

0.16 0.05

0	.1	6
0	.0	5
T	O	te hu

The two numbers have the same amount of ones. The first number has more tenths than the second, so the first number is bigger.

0.16 0.5

0	.1	6
0	.5	
T	O	te hu

The two numbers have the same amount of ones. The second number has more tenths than the first, so is bigger.

2.3 = 2.30

2	.3	
2	.3	0
T	O	te hu

These have the same amount of ones (two), tenths (three), and hundredths (zero). The numbers are equal.

2.32 2.39

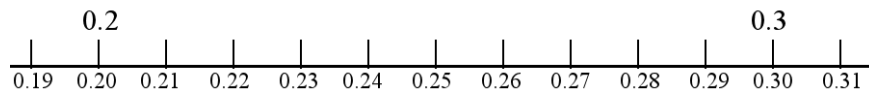
2	.3	2
2	.3	9
T	O	te hu

The numbers have the same amount of ones (two) and tenths (three), but the second one has more hundredths, so the second is bigger.

Tip: It is easier to compare if the numbers have the same amount of decimals. You can tag a zero (or zeros) to the end of the number with less decimals.

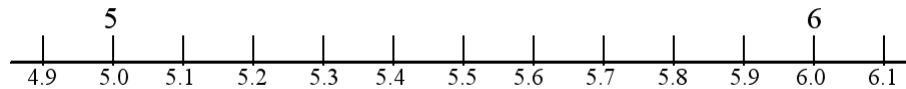
Which is bigger, 0.2 or 0.15 ? Tag a zero to the end of 0.2 to get... Which is bigger, 0.20 or 0.15 ?

1. a. Which is greater,
0.3 or 0.21?



- b. Draw a number line
from 0.5 till 0.6,
and find the numbers
0.55 and 0.6 on it.
Which is greater?

- c. Mark the numbers
5.2 and 5.02 on
this number line.



2. Write the following numbers in order. Remember: *It is easier to compare if the numbers have the same amount of decimals.* You can also use the number line above to help.

5.01 5.3 5.03 5.19 5.1 4.9 5.24 4.92 5.15 5.5 4.8

3. Compare and write $<$, $>$, or $=$. Use the place value tables if you need to.

<p>a. 9.1 <input type="checkbox"/> 9.09</p> <table border="1" style="display: inline-table; text-align: center; width: 40px; height: 40px;"> <tr><td> </td><td> </td><td>.</td><td> </td></tr> <tr><td>T</td><td>O</td><td>te</td><td>hu</td></tr> </table>			.		T	O	te	hu	<p>b. 2.08 <input type="checkbox"/> 2.04</p> <table border="1" style="display: inline-table; text-align: center; width: 40px; height: 40px;"> <tr><td> </td><td> </td><td>.</td><td> </td></tr> <tr><td>T</td><td>O</td><td>te</td><td>hu</td></tr> </table>			.		T	O	te	hu	<p>c. 12.08 <input type="checkbox"/> 12.70</p> <table border="1" style="display: inline-table; text-align: center; width: 40px; height: 40px;"> <tr><td> </td><td> </td><td>.</td><td> </td></tr> <tr><td>T</td><td>O</td><td>te</td><td>hu</td></tr> </table>			.		T	O	te	hu
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