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**Comparing Decimals**

**The following steps will help us to compare the decimal numbers:**

**Step I:** Obtain the decimal numbers.

**Step II:** Compare the whole parts of the numbers. The whole number part with greater number will be greater. If the whole number parts are equal, then go to next step.

**Step III:** Compare the last left digits of the decimal parts of two numbers with the greater left digit at the last will be greater. If the left digits at the last of decimal parts are equal, then compare the next digits and so on.

**Three different types of questions based on comparing decimals:**

**A.**First compare the whole number part of the decimal number. Decimal with the greater whole number is greater.

**1.** Compare 23.14 and 8.67

In 23.14 the whole number part is **23**and in 8.67 the whole number part is **8**.

But 23 > 8

Therefore, 23.14 > 8.67

**B.**If the whole number part is the same, then compare the digit at the tenths place. The decimal with the greater tenths digit is greater.

**2.** Compare 53.47 and 53.81.

In 53.47 and 53.81, the whole number part is the same, i.e., 53.

In 53.47, the decimal part is .**4**7 and the digit in the tenths place is 4.

n 53.81, the decimal part is .**8**1 and the digit in the tenths place is 8.

But 8 > 4

Therefore, 53.81 > 53.47

**C.** If the whole number part and the digit in the tenths place are the same, then compare the digit at the hundredths place and so on.

**3.** Compare 81.39 and 81.37.

In **81**.39 and **81**.37, the whole number part is the same, i.e., 81.

In 81.**3**9 and 81.**3**7, the decimal part in the tenths place is the same, i.e., 3

In 81.39, the decimal part is .3**9** and the digit in the hundredths place is 9.

In 81.37, the decimal part is .3**7**and the digit in the hundredths place is 7.

But 9 > 7Therefore, 81.39 > 81.37

Write the following decimals in ascending order:

5.64, 2.54, 3.05, 0.259 and 8.32**Solution:**

To convert the given decimal numbers into like decimals, we get

5.640, 2.540, 3.050, 0.259 and 8.320

Therefore, 0.259 < 2.540 < 3.050 < 5.640 < 8.320

Hence, the given decimals in ascending order are:

0.259, 2.54, 3.05, 5.64 and 8.32

Arrange the following decimals in descending order.

8.14, 5.96, 0.863, 6.4, 3.81 and 0.5

**Solution:**

By converting each of the decimal number to like decimals we get

8.140, 5.960, 0.863, 6.400, 3.810 and 0.500

Therefore, 8.140 > 6.400 > 5.960 > 3.810 > 0.863 > 0.500

Hence, the given decimals in descending order are:

8.14, 6.4, 5.96, 3.81, 0.863, 0.5