

**Comparison of Rational Numbers**

In order to compare any two rational numbers, we can use the following steps:

**Step I:** Obtain the given rational numbers.

**Step II:** Write the given rational numbers so that their denominators are positive.

**Step III:** Find the LCM of the positive denominators of the rational numbers obtained in step II.

**Step IV:** Express each rational number (obtained in step II) with the LCM (obtained in step III) as

common denominator.

**Step V:** Compare the numerators of rational numbers obtained in step having greater numerator is the

greater rational number.

**Step VI:** To compare two negative rational numbers, we compare them ignoring their negative signs and

then reverse the order.

**Problem: Which of the two rational numbers 5/7 and 3/5 is greater?**

**Solution:**

Clearly, denominators o f the given rational numbers are positive. The denominators are 7 and 5. The

LCM of 7 and 5 is 35. So, we first express each rational number with 35 as common denominator.

Therefore, 5/7 = (5 \* 5)/(7 \* 5) = 25/35 and 35 = (3 \* 7)/(5 \* 7) = 21/35

Now, we compare the numerators of these rational numbers.

Therefore, 25 > 21

⇒ 25/35 > 21/35

⇒ 5/7 > 3/5