NCERT solution Decimals Ex 8.1

Exercise 8.1
Question 1

Which is greater?

(a) 0.3 or 0.4

(b) 0.07 or 0.02

(c) 3 or 0.8

(d) 0.5 or 0.05

(e) 1.23 or 1.2

(f) 0.099 or 0.19

(g) 1.5 or 1.50

(h) 1.431 or 1.490

(i) 3.3 or 3.300

(j) 5.64 or 5.603

Answer

To find larger number, we can follow these steps

1) When comparing two positive decimals, here are the tips

a) If two numbers have unequal number of digits on the whole part, then the number with the greater number of digits is greater.

b) If two numbers have equal number of digits on the whole part then, the number with greater valued digit on the extreme left is greater. If the digits on extreme left of the numbers are equal, then the digits to the right of the

extreme left digits are compared and so on.

c) if the whole part is same, then the number with a greater value digit at tenth part is greater, if the digits on tenth part are equal, then the digit on hundredth part compared and so on

2) When comparing two negative decimals, we can remove the sign and compare them as positive integer given above, the smallest of them would be the greater when we put the sign back

3)We comparing two different sign decimals, the number with positive sign is larger

With that in mind, lets solve the above questions

a) 0.3 and 0.4

Apply the same principle as given above

The whole number part is the same. It can be seen that the tenth part (3) of 0.3 is less than the tenth part (4) of 0.4.
So, 0.4 is greater.

b) 0.07 and 0.02

Apply the same principle as given above

The whole number part is the same. It can be seen that the hundredth part (7) of 0.07 is greater than the hundredth part (2) of 0.02.
So, 0.07 is greater.

c) 3 or 0.8

Apply the same principle as given above

The whole part 3 is greater than the decimal 0.8
So, 3 is greater

d) 0.5 or 0.05

Apply the same principle as given above

The whole part is the same. Tenth part of 0.5 is 5 and the tenth part of 0.05 is 0. So, we see that the tenth part of 0.5 is greater than the tenth part of 0.05. So, 0.5 is greater.

e) 1.23 or 1.2

Apply the same principle as given above
Whole part is 1 and is the same. The tenth part is also the same. The hundredth part of 1.23 is 3 and the hundredth part of 1.2 is 0. So, we see that 1.23 I greater.

f) 0.099 or 0.19
Apply the same principle as given above
Whole number part is the same. The tenth part of 0.099 is 0 and that of 0.19 is 1. So, the tenth part of 0.19 is greater than 0.099. Hence, 0.19 is greater.

g) 1.5 or 1.50
Apply the same principle as given above
Whole number is the same. The tenth part is the same. So, the numbers are equal.

h) 1.431 or 1.490
Apply the same principle as given above
The whole number is the same. The number in the tenth part is also the same. The hundredth part of 1.431 is 3 and that of 1.491 is 9. We see that 3 < 9 and hence 1.431 is lesser than 1.490.
Hence, 1.490 is greater.

I) 3.3 or 3.300
Apply the same principle as given above
The whole number part and the tenth part are the same. When there are no digits in the hundredths and the thousandths place of the number, we know that the digits are zero.
So, the numbers are the same.

j) 5.64 or 5.603
Apply the same principle as given above
The whole number and the tenth place digits are the same. As 4 is greater than 0, we know that 5.64 is greater than 5.603.
So, 5.64 is greater.