Exercise 7.7

Question: 1

Choose the decimal(s) from the brackets which are not equivalent to the given decimals:

i) 0.8 (0.80, 0.85, 0.800, 0.08)

ii) 25.1 (25.01, 25.10, 25.100, 25.001)

iii) 45.05(45.050, 15.005, 45.500, 45.0500)

Solution:

i) 0.85 and 0.08 are not equivalent to the given decimal .

In 0.85, we have 5 in the hundredth place, where as in 0.8 we have nothing in the hundredth place.

In 0.08, 0 is in the tenth place, whereas in 0.8, 8 is in the tenth place.

ii) 25.01 and 25.001 are not equivalent to the given decimal.

In 25.01, 0 is in the tenth place, whereas in 25.1, 1 is in the tenth place.

iii) In 45.005 and 45.500 are not equivalent to the given decimal.

In 45.005, 0 is in the hundredth place, whereas in 45.05, 5 is in the hundredth place.

In 45.500, 5 is in the tenth place, whereas in 45.05 is in the tenth place

Question: 2

Which of the following are like decimals?

Solution:

i) 0.34, 0.07, 5.35, 24.70

Like decimals, since these have the same number of digits after the decimal point

ii) 45.05, 4.505, 20.55, 20.5

Unlike decimals, since these have different number of digits after the decimal point

iii) 8.80, 17.08, 8.94, 0.27

Like decimals, since these have the same number of digits after the decimal point.

iv) 4.50, 16.80, 0.700, 7.08

Unlike decimals, since these have different number of digits after the decimal point.

Question: 3

Which of the following statements are correct?

Solution:

i) Correct since these two decimals have the same number of digits after the decimal point, only by 2

ii) Correct, since these three decimals have different numbers of digits after the decimal point.

iii) Incorrect, since these two decimals have different numbers of digits after the decimal point.

iv) Incorrect , since these three decimals have different numbers of digits after the decimal point.

v) Correct, since these three decimals have the same number of digits after the decimal point.

Question: 4

Convert each of the following sets of unlike decimals to like decimal:

Solution:

i) Of the two given decimals, 7.85 has more decimal points, i.e two, so we change 7.8 so that it has two decimal places.

Therefore, the like decimals are 7.80 and 7.85

ii) Of the two given decimals, 2.02 has more decimals places, i.e two, so we change 3.2 so that it has two decimal places.

Therefore, the like decimals are 2.02 and 3.20

iii) Of the three given decimals , 12.765 has the highest number of decimal places, i.e three, so we change the other two decimals so that they also have

three decimal places.

Therefore, like decimals are 0.600, 5.800 and 12.765

iv) Of the three given decimals, 5.296 has the highest number of decimal places, i.e three so we change the other two decimals so that they also have three decimal places.

Therefore, the like decimals are 5.296, 5.200 and 5.290

v) Among the three given decimals, 4.3294 has the highest number of decimal places, i.e four so we change all the decimals so that they also have four decimal places.

Therefore, the like decimals are 4.3294, 13.2900 and 132.9400