

Decimals

Page No. - 105 Ex - 46 (a)

Q.1. Compare the decimals using $>$, $=$ or $<$

(a) $7.36 < 7.48$

Note:- Before comparing two decimals first convert them into like decimals and then compare them as the whole numbers.

(b) $12.67 < 12.9$

Convert into like decimals

$\Rightarrow 12.67 < 12.90$

Then compare them

$12.67 < 12.90$

(c) $19.07 > 19.06$

$\Rightarrow 19.07 > 19.06$

Rest of questions solve by yourself as solved above.

Q2 Rearrange ~~them~~ in ascending order.

(a) 5.12, 5.21, 5.30, 5.00

Convert the given decimals into the like fractions and then rearrange them as whole numbers in ascending or descending order.

solution:- 5.12, 5.21, 5.30, 5.00
ascending order

$$5.00 < 5.12 < 5.21 < 5.30$$

$$5 < 5.12 < 5.21 < 5.30 \quad \text{ans.}$$

(b) 30, 29.09, 30.001, 29.9

solution:- Convert into like decimals

$$30.000, 29.090, 30.001, 29.900$$

Rearrange them in ascending order.

$$29.090 < 29.900 < 30.000 < 30.001$$

$$29.09 < 29.9 < 30 < 30.001 \quad \text{ans.}$$

Solve rest of questions by yourself.

Q.3 Rearrange in descending order.

- (a) 7.63, 70.003, 7.6, 70.21

Solution - Convert into like decimals.

7.630, 70.003, 7.600, 70.210

Rearrange them in descending order.

$70.210 > 70.003 > 7.630 > 7.600$

$70.21 > 70.003 > 7.63 > 7.6$ ans.

solve rest of questions by yourself.

Q.4 Write the next three numbers in the series.

- (a) 7.01, 7.02, 7.03, 7.04, 7.05, 7.06

- (e) 9.001, 9.002, 9.003, 9.004, 9.005, 9.006

- (f) 0.001, 0.002, 0.003, 0.004, 0.005, 0.006

solve rest of questions by yourself.

Add

Q.1 $27.02 + 28.1$

Note:- Place the decimals one below the other as per place value system. Ones below ones, tenths below tenths and so on. Keep the decimal points in the same column.

Convert the decimals into like decimals. Now add the numbers vertically, place the decimal point in the answer in the same column.

Solution:-

$27.02 + 28.10$

①

27.02

$+ 28.10$

 55.12

ans.

⑤ $0.2 + 2 + 22.40$

Convert into like decimals.

$0.20 + 2.00 + 22.40$

$\Rightarrow 0.20$

2.00

$+ 22.40$

 24.60

ans.

subtract

Q.1 $8.21 - 4.05$

Note:- Convert into like decimals and subtract. Borrow, if required.

Solution:-

$$\begin{array}{r}
 8.21 \\
 - 4.05 \\
 \hline
 4.16
 \end{array}$$

ans.

③ $17.29 - 6.203$

Convert into like decimals

$17.290 - 6.203$

$$\begin{array}{r}
 \Rightarrow 17.290 \\
 - 6.203 \\
 \hline
 11.087
 \end{array}$$

ans.

⑦ $0.83 - 0.612$

Convert into like decimals

$0.830 - 0.612$

$$\begin{array}{r}
 \Rightarrow 0.830 \\
 - 0.612 \\
 \hline
 0.218
 \end{array}$$

ans.

Solve rest of questions by yourself as solved above.

Q.1 Meetu bought 200.2 g of Sweets.
 Varsha bought 150.55g of Sweets.
 How much Sweets did they buy

in all?
 Convert into like decimals.

Solution:- Quantity of Sweets
 bought by Meetu = 200.20 g
 Quantity of Sweets
 bought by Varsha = 150.55 g

Total Quantity = 350.75 g
 they bought 350.75g of Sweets.

Q.2 A recipe requires 120.12 ml
 of water and 68.8 ml of milk
 cream. How much water and
 milk cream is needed together

Solution:- Convert into like decimals.
 Quantity of water = 120.12 ml
 Quantity of milk cream = 68.80 ml

Total Quantity = 188.92 ml

Q.6 Pradeep ran a race in 80.14 seconds. Halit ran the same race in 79.99 seconds. How much longer did it take Pradeep to run the race than the Halit?

Solution - Time taken by Pradeep = 80.14 sec.
Time taken by Halit = 79.99 sec

Extra time taken by Pradeep = 0.15 sec.

Q.7 Tom weighs 62.08 kg. Tim weighs 41.8 kg. How much more does Tom weigh than Tim?

Solution - Weight of Tom = 62.08 kg
Weight of Tim = 41.80 kg

Tom weighs more = 20.28 kg.

Q.No. 3, 4, 5 Solve by yourself as solved above.

Q.2 multiply the decimals.

(a) 4.2×7

Note! - multiply as you multiply the whole numbers ignoring the decimal point.

Count the total decimal places and place the decimal point at the same place in the product.

solution! -

$$\begin{array}{r} \textcircled{1} \\ 4.2 \rightarrow \text{Decimal place} = 1 \\ \times 7 \rightarrow \text{Decimal place} = 0 \\ \hline 29.4 \end{array}$$

1

↑

(b) 7.3×12

solution! -

$$\begin{array}{r} \textcircled{3} \\ 7.3 \rightarrow \text{Decimal place} = 1 \\ \times 12 \rightarrow \text{Decimal place} = 0 \\ \hline 87.6 \end{array}$$

1

↑

$7.3 \times 12 = 87.6$ ans.

(c) 35×1.1

solution! -

$$\begin{array}{r} \textcircled{0} \\ 35 \rightarrow \text{Decimal place} = 0 \\ \times 1.1 \rightarrow \text{Decimal place} = 1 \\ \hline 38.5 \end{array}$$

1

↑

(e) 0.0×2.13

solution:-

$$\begin{array}{r} 0.0 \\ \times 2.13 \\ \hline 0.0 \end{array}$$

By the property of zero.

(h) 1.123×7

solution:-

$$\begin{array}{r} \textcircled{1}\textcircled{2} \\ 1.123 \\ \times 7 \\ \hline 7.861 \end{array}$$

→ Decimal places = 3
Decimal places = $\frac{+0}{3}$

$1.123 \times 7 = 7.861$ ans.

(l) 2.9×0.02

solution:-

$$\begin{array}{r} \textcircled{1} \\ 2.9 \\ \times 0.02 \\ \hline 58 \\ 00 \times \\ 00 \times \\ \hline 0.058 \end{array}$$

→ Decimal places = 1
Decimal places = $\frac{+2}{3}$

Q3 multiply the decimals.

(a) 0.3×0.1

Solution:-

$$\begin{array}{r} 0.3 \quad \rightarrow \text{Decimal place} = 1 \\ \times 0.1 \quad \rightarrow \text{Decimal place} = +1 \\ \hline 03 \\ 00x \\ \hline 0.03 \end{array}$$

place the decimal point
Counting from the extreme right in the product

$0.3 \times 0.1 = 0.03$ ans.

(d) 0.04×0.05

Solution:-

$$\begin{array}{r} 0.04 \quad \rightarrow \text{Decimal places} = 2 \\ \times 0.05 \quad \rightarrow \text{Decimal places} = 2 \\ \hline 020 \\ 000x \\ \hline 0.0020 \end{array}$$

(f) 22×0.002

Solution:-

$$\begin{array}{r} 22 \quad \rightarrow \text{Decimal place} = 0 \\ \times 0.002 \quad \rightarrow \text{Decimal places} = +3 \\ \hline 44 \\ 00x \\ 00x \\ 00x \\ \hline 0.044 \end{array}$$

solve rest of question by yourself.

Q.4 and 5 done in book.

Q.6 word problems:

(a) A bottle contains 2.55 l of water.
How much will 9 such bottles contain?

Solution:- Quantity of one bottle = 2.55 l

No. of bottles = 9

Total Quantity of water = 22.95 l

(b) Mohit bought 4.52 l of milk at the rate of Rs 12.50 per litre. How much did he pay for the milk?

Solution:- Total Quantity of milk = 4.52 l
Cost of per litre milk = 12.50

$$\begin{array}{r} 000 \\ 2260 \times \\ 904 \times \\ 452 \times \\ \hline 56.5000 \end{array}$$

Total Cost he paid ₹ 56.5

Solve rest of questions by yourself.