

Decimals

Solution -01:-

(i) 30.5

Thirty point five (or)
thirty and five tenths.

(ii) 0.03

zero point zero three.

(iii) 108.56

one hundred eight point five six.

(iv) 47.20

Forty seven point two zero.

(v) 5.008

Five point zero zero eight.

(vi) 26.039

Twenty six point zero three nine.

Solution -02:-

Places	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
Values.	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
(i) 4.2				4	2		
(ii) 0.3				0	3		
(iii) 205.9		2	0	5	9		
(iv) 0.29				0	2	9	
(v) 2.08				2	0	8	
(vi) 7200.812	7	2	0	0	8	1	2
(vii) 38007			3	8	0	0	7

Solution-03:-

$$(i) 123.7 = 1 \times 100 + 2 \times 10 + 3 \times 1 + 7 \times \frac{1}{10} \\ = 100 + 20 + 3 + \frac{07}{10}$$

$$(ii) 43.06 = 4 \times 10 + 3 \times 1 + 0 \times \frac{1}{10} + 6 \times \frac{1}{100} \\ = 40 + 3 + \frac{0}{10} + \frac{6}{100}$$

$$(iii) 509.306 = 5 \times 100 + 0 \times 10 + 9 \times 1 + 3 \times \frac{1}{10} + 0 \times \frac{1}{100} + 6 \times \frac{1}{1000} \\ = 500 + 0 + 9 + \frac{3}{10} + \frac{0}{100} + \frac{6}{1000}$$

Solution-04:-

$$(i) 200 + 60 + 5 + \frac{3}{10} = 2 \times 100 + 6 \times 10 + 5 \times 1 + \frac{3 \times 1}{10} \\ = 265.3$$

$$(ii) 50 + \frac{1}{10} + \frac{6}{100} = 5 \times 10 + 0 \times 1 + 1 \times \frac{1}{10} + 6 \times \frac{1}{100} \\ = 50.16$$

$$(iii) 70 + 6 + \frac{7}{10} + \frac{9}{1000} = 7 \times 10 + 1 \times 6 + 7 \times \frac{1}{10} + 0 \times \frac{1}{100} + 9 \times \frac{1}{1000} \\ = 76.709$$

$$(iv) 600 + 7 + \frac{3}{100} + \frac{6}{1000} = 6 \times 100 + 0 \times 10 + 7 \times 1 + 0 \times \frac{1}{10} + \\ 3 \times \frac{1}{100} + 6 \times \frac{1}{1000} \\ = 607.036$$

Solution 0-06:-

$$(i) \text{ Given number} = 7 \times 1000 + 1 \times 100 + 0 \times 10 + 2 \times 1 +$$

$$3 \times \frac{1}{10} + 0 \times \frac{1}{100} + 6 \times \frac{1}{1000}.$$

$$= 7000 + 100 + 0 + 2 + \frac{3}{10} + 0 + \frac{6}{1000}$$

$$= 7102.306.$$

$$(ii) \text{ Given number} = 2 \times 100 + 1 \times 10 + 1 \times \frac{1}{10} + 9 \times \frac{1}{10} + 0 \times \frac{1}{100}$$

$$+ 2 \times \frac{1}{1000}.$$

$$= 211.902.$$

$$(iii) \text{ Given number} = 3 \times 1000 + 0 \times 100 + 5 \times 10 + 3 \times 1 + 0 \times \frac{1}{10}$$

$$+ 1 \times \frac{1}{100} + 5 \times \frac{1}{1000}.$$

$$= 3053.015.$$

$$(iv) \text{ Given number} = 7 \times 10 + 0 \times 1 + 0 \times \frac{1}{10} + 3 \times \frac{1}{100}$$

$$= 70.03.$$

$$(v) \text{ Given number} = 5 \times 1 + 4 \times \frac{1}{10} + 0 \times \frac{1}{100}$$

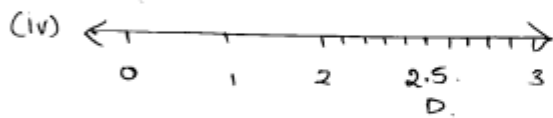
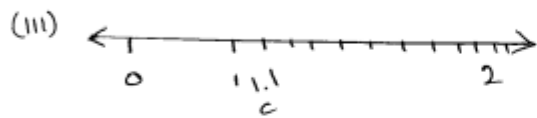
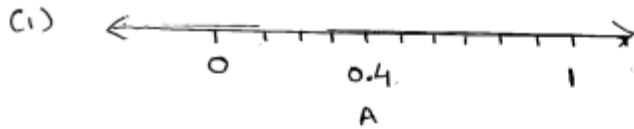
$$= 5.40.$$

$$(vi) \text{ Given number} = 7 \times 100 + 1 \times 10 + 9 \times 1 + 0 \times \frac{1}{10} +$$

$$2 \times \frac{1}{100} + 8 \times \frac{1}{1000}.$$

$$= 719.028.$$

Solution -07:-



Solution -08:-

The decimal numbers represented by points A, B, C and D are 0.8, 1.3, 2.2 and 2.9 respectively.

Solution -09:-

(i) 0 and 0.1

(ii) 0.4 and 0.5

(iii) 0.6 and 0.7

(iv) 0.9 and 1.0.

Exercise - 7.2.

Solution-01:-

$$(i) \frac{531}{10} = 53.1$$

$$(ii) \frac{422}{100} = 4.22$$

$$(iii) \frac{58301}{1000} = 58.301$$

$$(iv) \frac{7}{10} = 0.7.$$

$$(v) \frac{3}{100} = 0.03$$

$$(vi) \frac{37}{1000} = 0.037.$$

Solution-02:-

$$(i) 54.01 = 50 + 4 \times 1 + 0 \times \frac{1}{10} + 1 \times \frac{1}{100}$$

$$= \frac{5000 + 400 + 0 + 1}{100}$$

$$= \frac{5401}{100}$$

$$(ii) 318.105 = 3 \times 100 + 1 \times 10 + 8 \times 1 + 1 \times \frac{1}{10} + 0 \times \frac{1}{100} + 5 \times \frac{1}{1000}$$

$$= \frac{300 \times 1000 + 10 \times 1000 + 8 \times 1000 + 1 \times 100 + 0 + 5}{1000}$$

$$= \frac{318105}{1000}$$

$$(iii) 0.37 = 0 \times 1 + 3 \times \frac{1}{10} + 7 \times \frac{1}{100}$$

$$= \frac{0 \times 100 + 3 \times 10 + 7}{100}$$

$$= \frac{37}{100}$$

$$(iv) 0.047 = 0 \times 1 + 0 \times \frac{1}{10} + 4 \times \frac{1}{100} + 7 \times \frac{1}{1000}$$

$$= \frac{0 + 0 + 4 \times 10 + 7 \times 1}{1000}$$

$$= \frac{47}{1000}$$

$$(v) 0.03 = 0 \times 1 + 0 \times \frac{1}{10} + 3 \times \frac{1}{100}$$

$$= \frac{0 + 0 \times 10 + 3 \times 1}{100}$$

$$= \frac{3}{100}$$

$$(vi) 34.5 = 3 \times 10 + 4 \times 1 + 5 \times \frac{1}{10}$$

$$= \frac{30 \times 10 + 4 \times 10 + 5 \times 1}{10}$$

$$= \frac{300 + 40 + 5}{10}$$

$$= \frac{345}{10}$$

Solution - 03

$$(i) 0.8 = \frac{8}{10}$$

$$= \frac{4}{5}$$

$$(ii) 0.04 = \frac{4}{100}$$

$$= \frac{1}{25}$$

$$(iii) 0.125 = \frac{125}{1000}$$

$$= \frac{1}{8}$$

$$(iv) 0.225 = \frac{225}{1000}$$

$$= \frac{9}{40}$$

$$(v) 0.066 = \frac{66}{1000}$$

$$= \frac{33}{500}$$

$$(vi) 0.092 = \frac{92}{1000}$$

$$= \frac{46}{500}$$

$$= \frac{23}{250}$$

Solution - 04:

$$(i) 31.6 = 30 + 1.6$$

$$= 3 \times 10 + 1 \times 1 + \frac{6}{10}$$

$$= 31 \frac{6}{10}$$

$$(ii) 3.25 = 3 \times 1 + 2 \times \frac{1}{10} + 5 \times \frac{1}{100}$$

$$= \frac{3 \times 100 + 2 \times 10 + 5 \times 1}{100}$$

$$= \frac{325}{100} = \frac{300}{100} + \frac{25}{100} = 3 + \frac{25}{100}$$

$$= 3 \frac{25}{100} = 3 \frac{1}{4}$$

$$(iii) 7.025 = 7 \times 1 + 0 \times \frac{1}{10} + 2 \times \frac{1}{100} + 5 \times \frac{1}{1000}$$

$$= \frac{7 \times 1000 + 0 \times 100 + 2 \times 10 + 5}{1000}$$

$$= \frac{7025}{1000} = \frac{7000}{1000} + \frac{25}{1000} = 7 + \frac{25}{1000}$$

$$= 7 \frac{25}{1000}$$

$$= 7 \frac{1}{40}$$

$$(iv) 95.95 = 95 + \frac{95}{100}$$

$$= 95 + \frac{19}{20}$$

$$= 95 \frac{19}{20}$$

Solution -05:-

$$(i) \frac{4}{5}$$

convert the each fraction into an equivalent decimal fraction i.e with denominators 10, 100, 1000, ...

$$\frac{4}{5} = \frac{4 \times 2}{5 \times 2} = \frac{8}{10} = 0.8$$

$$(ii) \frac{6}{25} = \frac{6 \times 4}{25 \times 4}$$

$$= \frac{24}{100} = 0.24$$

$$(iii) \frac{112}{125} = \frac{112 \times 8}{125 \times 8}$$

$$= \frac{896}{1000} = 0.896$$

$$(iv) \frac{3}{4} = \frac{3 \times 25}{4 \times 25} = \frac{75}{100}$$

$$= 0.75$$

$$(v) \frac{3}{8} = \frac{3 \times 125}{8 \times 125} = \frac{375}{1000}$$

$$= 0.375$$

$$(vi) 7\frac{3}{40} = 7 + \frac{3}{40} = 7 + \frac{3 \times 25}{40 \times 25}$$

$$= 7 + \frac{75}{1000}$$

$$= 7 + 0.075$$

$$= 7.075$$

Solution-06:-

(i) The like decimal numbers have equal number of decimal places.

the like decimal numbers equivalent to

17.5, 3.912 are 17.500, 3.912

Addition of zero(s) at the end of a decimal number does not change the value of the number.

(ii) the decimal like numbers equivalent to 5.04, 13.1902 are 5.0400 and 13.1902.

(iii) the like decimal numbers equivalent to 2.451, 3.7, 28.34 are 2.451, 3.700, 28.340.

(iv) the like decimal numbers equivalent to 3.1, 2.678 and 27.0103 are 3.1000, 2.6780 and 27.0103.

(∴ Addition of zero(s) at the end of a decimal number does not change the value of a number.)

Solution-07:-

(i) 0.3, 0.4.

0.3 and 0.4 are like decimal numbers.

We note that the whole number parts of given numbers are equal.

Let us compare 10th digits.

In 0.3, digit at tenths place = 3 and

in 0.4, digit at " = 4.

Since $4 > 3$, therefore $0.4 > 0.3$.

(ii) First, we convert the given decimal numbers to like decimal numbers which are equivalent.

the like decimal numbers equivalent to 1, 0.99 are 1.00 and 0.99.

We note that the whole number parts of given numbers are not equal.

ones digit of 1.00 is 1

" of 0.99 is 0.

Since $1 > 0$, therefore $1 > 0.99$

$1.00 > 0.99$.

(iii) 1.09, 1.093.

The like decimal numbers equivalent to 1.09, 1.093 are 1.090 and 1.093.

We note that the whole number parts of given numbers are equal.

Let us now compare their tenth digits

In both numbers, digit at tenths place = 0.

So, we compare hundredths digits.

So, we compared in both numbers, digits at hundredths place = 9.

then we compare thousandths digits

In 1.090,	digit at thousandths place = 0
1.093	" " " = 3

Since $3 > 0$, therefore $1.093 > 1.09$.

(iv) 0.5, 0.05.

The like decimal numbers equivalent to 0.5, 0.05 are 0.50 and 0.05

We note that whole number parts of given numbers are equal.

Let us now compare their tenth digits

In 0.5, digit at tenths place = 5

0.05,	"	"	= 0
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Since $5 > 0$, therefore $0.5 > 0.05$.

Solution - 08:-

(i) Express the given numbers decimals as like decimals,
we get 45.78 and 345.80.

We compare whole number parts

In 45.78 whole number is 45
345.80 " 345

Since $345 > 45$, therefore $45.78 < 345.80$.

(ii) Express the given decimals as like decimals,
we get 37.701, and 37.710.

We note ^{the} that whole number parts of a given numbers
are equal.

Let us now compare their tenths digits

In both numbers, digits at tenths place = 7

So, we compare hundredths digits

In 37.701, hundredths digit is 0
37.710 " is 1

Since $0 < 1$, therefore $37.701 < 37.710$.

(iii) Express the given decimals as like decimals
5.907 and 5.903.

We note, the whole number parts of a given
numbers are equal

Let us now compare their tenths digits

In both numbers, digits at tenths place = 9.

Let us now compare their hundredths digits

In both numbers, digits at hundredths place = 0.

So, we compare thousandths digits.

In 5.907, thousandths digit is 7,
5.903, " is 3.

Since $3 < 7$, therefore $5.903 < 5.907$

Solution-09:-

(i) 27.35, 27.305, 2.7, 2.543

Expressing the given decimal numbers as like decimal numbers, we get

27.350, 27.305, 2.700, 2.543

On comparing these like decimal numbers we find that

$2.543 < 2.700 < 27.305 < 27.350$

Thus, $2.543 < 2.7 < 27.305 < 27.35$

Hence the given decimal numbers in ascending order

are 2.543, 2.7, 27.305 and 27.35

(ii) 4.53, 4.07, 29.1, 0.9, 0.709

Expressing the given decimal numbers as like decimal numbers, we get

4.530, 4.070, 29.100, 0.900, 0.709

On comparing these like decimal numbers we find that

$29.100 > 4.530 > 4.070 > 0.900 > 0.709$

Thus $0.709 < 0.9 < 4.07 < 4.53 < 29.1$

Hence, the given decimal numbers in ascending order

are 0.709, 0.9, 4.07, 4.53 and 29.1

(iii) Solution-10:-

(i) 3.303, 33.03, 3.3, 30.33

Expressing the given decimal numbers as like decimal numbers, we get

3.303, 33.030, 3.300, 30.330

On comparing these like decimal numbers, we find that

$3.300 < 3.303 < 30.330 < 33.030$

Thus, $3.3 < 3.303 < 30.33 < 33.03$.

Hence, the given numbers in descending order are $33.03, 30.33, 3.303, 3.3$.

(ii) $72.5, 2.75, 27.505, 0.275, 2.507$.

Expressing the given decimals as like decimals, we get

$72.500, 2.750, 27.505, 0.275, 2.507$.

On comparing the given decimal numbers, we get

$72.500 > 27.505 > 2.750 > 2.507 > 0.275$

Thus, $72.5 > 27.505 > 2.75 > 2.507 > 0.275$

Hence, the given numbers in descending order are

$72.5, 27.505, 2.75, 2.507, 0.275$.

Exercise- 7.3

Solution-01:-

$$\begin{array}{r} \text{(i)} 17.5 \\ \quad 8.8 \\ \hline 26.3 \end{array}$$

$$\begin{array}{r} \text{(ii)} 9.999 \\ \quad 0.030 \\ \hline 10.029 \end{array}$$

$$\begin{array}{r} \text{(iii)} 6.87 \\ \quad 1.03 \\ \quad 0.10 \\ \hline 7.00 \end{array}$$

$$\begin{array}{r} \text{(iv)} 23.710 \\ \quad 9.900 \\ \quad 4.023 \\ \hline 37.633 \end{array}$$

$$\begin{array}{r} \text{(v)} 4.500 \\ \quad 16.024 \\ \quad 7.990 \\ \hline 28.514 \end{array}$$

$$\begin{array}{r} \text{(vi)} 8.790 \\ \quad 23.000 \\ \quad 5.400 \\ \quad 0.875 \\ \hline 38.066 \end{array}$$

$$\therefore 8.790 + 23.000 + 5.4 + 0.875 = 38.066.$$

Solution-02:-

$$\begin{array}{r} \text{(ii)} \quad 19.010 \\ \quad \quad 12.234 \\ \hline \quad \quad 6.776 \\ \hline \end{array}$$

$$\begin{array}{r} \text{(i)} \quad 5.82 \\ \quad \quad 2.65 \\ \hline \quad \quad 3.17 \end{array}$$

$$\begin{array}{r} \text{(iii)} \quad 15.400 \\ \quad \quad \text{(H)} \quad 3.015 \\ \hline \quad \quad 18.415 \end{array}$$

$$\begin{array}{r} 18.415 \\ \text{(C)} \quad 14.237 \\ \hline \quad \quad 4.178 \end{array}$$

$$\therefore 15.4 + 3.015 - 14.237 = 4.178$$

$$\begin{array}{r} \text{(iv)} \quad 7.40 \\ \quad \quad - 2.19 \\ \hline \quad \quad 5.21 \\ \hline \end{array}$$

$$\begin{array}{r} 5.210 \\ \quad \quad - 0.456 \\ \hline \quad \quad 4.754 \end{array}$$

$$\begin{array}{r} 4.754 \\ \quad \quad - 3.500 \\ \hline \quad \quad 1.254 \end{array}$$

Solution - 02 :-

$$\begin{array}{r} \text{(v)} \quad 19.270 \\ \quad \quad 3.600 \\ \hline \quad \quad 15.670 \end{array}$$

$$\begin{array}{r} 15.670 \\ \text{(i)} \quad 8.812 \\ \hline \quad \quad 6.858 \end{array}$$

$$\begin{array}{r} 6.858 \\ \text{(ii)} \quad 0.840 \\ \hline \quad \quad 7.698 \end{array}$$

$$\begin{array}{r} \text{(vi)} \quad 6.400 \\ \quad \quad 2.351 \\ \hline \quad \quad 4.049 \end{array}$$

$$\begin{array}{r} 4.049 \\ \quad \quad 0.999 \\ \hline \quad \quad 3.950 \end{array}$$

$$\begin{array}{r} 3.950 \\ \quad \quad 1.450 \\ \hline \quad \quad 2.500 \end{array}$$

$$\therefore 6.4 - 2.351 - 1.45 - 0.999 = 2.5$$

Solution-03:

Let the required number be 'x' to be added.

$$x + 0.756 = 1$$

$$1.000$$

$$0.756$$

$$\hline 0.244$$

$\therefore 0.244$ to be added to get 1.

Solution-04:-

The required number is the difference between 17.45 and 7.9702.

$$\therefore 17.4500$$

$$7.9702$$

$$\hline 9.4798$$

$\therefore 9.4798$ to be decreased to get 7.9702.

Exercise - 7.4.

Solution - 01:-

(i) 3.7×4.5

- (a) Ignore the decimal points and multiply the numbers.
 (b) count the number of decimal places in each number.
 In the first number 3.7, there is 1 decimal place and in the second number 4.5, there is 1 decimal place; their sum $1+1=2$.
 (c) using this sum, start at the right of the product ~~1665~~ and count off 2 places. Then place the decimal point.

$$\begin{array}{r}
 3.7 \\
 \times 4.5 \\
 \hline
 185 \\
 148 \times \\
 \hline
 1665
 \end{array}$$

$\therefore 3.7 \times 4.5 = 16.65$

(ii) 12.08×9.3

$$\begin{array}{r}
 1208 \\
 \times 93 \\
 \hline
 3624 \\
 11572 \times \\
 \hline
 119344
 \end{array}$$

- (a) Ignore the decimal points and multiply the numbers
 (b) count the number of decimal places in each number in first number 12.08, there is 2 decimal place and the second number 9.3 is 1 decimal place their sum $2+1=3$.
 (c) using this sum, start ^{at} the right of the product 119344 and count 3 places. Then place decimal point.

(iii). 238.06×7.5

$$\begin{array}{r} 23806 \\ \times 75 \quad \cancel{7} \cancel{A} \cancel{1} \\ \hline 119030 \\ 166642 \times \\ \hline 1785450 \end{array}$$

(a) Ignore the decimal points and multiply the numbers.

(b) Count the number of places in each decimal number. In the first number 238.06 there are two decimal places and in the second number 7.5 , there are one decimal place; their sum = $1+2=3$

(c) Using this sum, start at the right of the product 1785450 and count off 3 places, then place the decimal point.

(iv). 0.79×32.4

$$\begin{array}{r} 0.79 \times 32.4 = \quad 0.79 \quad = \quad 79 \\ \times 32.4 \quad \quad \quad \times 324 \quad \frac{3}{2} \\ \hline \quad \quad \quad \quad \quad \quad 316 \\ \quad \quad \quad \quad \quad \quad 158 \times \\ \quad \quad \quad \quad \quad \quad 237 \times \times \\ \hline \quad \quad \quad \quad \quad \quad 25596 \end{array}$$

(a) Ignore the decimal points and multiply the numbers.

(b) Count the number of places in each decimal number. In the first number 0.79 , there are two decimal places and in the second number 32.4 , there is one decimal place; their

$$\text{Sum} = 1+2 = 3.$$

(c) Using this sum, start at the right of the product 25596 and count off 3 places, then place the decimal point.

(v) $3.6 \times 1.4 \times 0.7$.

Steps

(a) Ignore the decimal points and multiply the numbers.

(b) count the number of decimal places in each number
 In the first number 3.6, there is 1 decimal place, and
 in the second number 1.4, there is 1 decimal place,
 in the third number 0.7, there is 1 decimal place.
 their sum = $1+1+1 = 3$.

$$\begin{array}{r}
 3.6 \\
 \times 1.4 \\
 \hline
 504 \\
 \times 7 \quad 2 \\
 \hline
 3528
 \end{array}$$

(c) using this sum, start at the right of the product 3528 and count off 3 places. Then place at the decimal point.

$$3.528$$

(vi) $9.01 \times 2.5 \times 1.6$.

Steps

(a) Ignore the decimal points and multiply the numbers

(b) count the number of decimal places in each number
 in the first number 9.01, there are 2 decimal places
 and in the second number 2.5, there is 1 decimal place,
 in the third number 1.6, there is 1 decimal place

their sum = $1+2+1 = 4$.

(c) using this sum, start at the right of product 360400 and count off 4 places. Then place at the decimal point

$$36.0400$$

$$\begin{array}{r}
 901 \\
 \times 25 \quad 2 \\
 \hline
 22525 \\
 \times 16 \quad 8 \times 4 \\
 \hline
 360400
 \end{array}$$

Solution - 02.

(i) $70.756 \div 4$

$$\begin{array}{r} 17.689 \\ 4 \overline{) 70.756} \\ \underline{4} \\ 30 \\ \underline{28} \\ 27 \\ \underline{24} \\ 35 \\ \underline{32} \\ 36 \\ \underline{36} \\ 0 \end{array}$$

[Place the decimal point in the quotient just completing the division of the whole number part of dividend.]

Hence, $70.756 \div 4 = 17.689$.

(ii) $2.46 \div 6$

$$\begin{array}{r} 4.1 \\ 6 \overline{) 24.6} \\ \underline{24} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

[Place the decimal point in the quotient just completing the division of the whole number part of dividend.]

(iii) $3.016 \div 8$

$$\begin{array}{r} 0.377 \\ 8 \overline{) 3.016} \\ \underline{24} \\ 61 \\ \underline{56} \\ 56 \\ \underline{56} \\ 0 \end{array}$$

(iv) $8.64 \div 3.6$.

To convert the divisor into natural number, shift decimal point to right by one place.

$$\begin{aligned} 8.64 \div 3.6 &= \frac{8.64}{3.6} \\ &= \frac{86.4}{36} \end{aligned}$$

$$\begin{array}{r}
 2.4 \\
 36 \overline{) 86.4} \\
 \underline{72} \\
 144 \\
 \underline{144} \\
 0
 \end{array}$$

Here

(v) $72.8 \div 0.04$.

To convert the divisor into natural number, Shift decimal point to right by two places.

$$\begin{aligned}
 \frac{72.8}{0.04} &= \frac{72.8 \times 100}{4} \\
 &= \frac{7280}{4}
 \end{aligned}$$

$$\begin{array}{r}
 1820 \\
 4 \overline{) 7280} \\
 \underline{4} \\
 32 \\
 \underline{32} \\
 08 \\
 \underline{08} \\
 00
 \end{array}$$

Hence $72.8 \div 0.04 = 1820$.

(vi) $0.144 \div 0.2$.

To convert the divisor into natural number, Shift decimal point to right by one place

$$\begin{aligned}
 \frac{0.144}{0.2} &= \frac{0.144 \times 10}{2} \\
 &= \frac{1.44}{2}
 \end{aligned}$$

$$\begin{array}{r}
 2) 1.44 \\
 \underline{14} \\
 04 \\
 \underline{04} \\
 0
 \end{array}$$

$$\begin{aligned}
 \therefore 1.44 \div 2 &= 0.72 \\
 1.44 \div 2 &= 0.72
 \end{aligned}$$

Solution - 03

(i) 4.7.

To multiply a decimal number 4.7 by 10, shift the decimal point to the right by one place 47.

To multiply a decimal number 4.7 by 100, shift the decimal point to the right by two places 470.

To multiply a decimal number 4.7 by 1000, shift the decimal point to the right by three places 4700.

(ii) 3.45.

To multiply a decimal number 3.45 by 10, shift the decimal point to the right by one place 34.5

To multiply a decimal number 3.45 by 100, shift the decimal point to the right by two places 345

To multiply a decimal number 3.45 by 1000, shift the decimal point to the right by three places 3450.

(iii) 0.234.

To multiply a decimal number 0.234 by 10, shift the decimal point to the right by one place 2.34.

To multiply a decimal number 0.234 by 100, shift the decimal point to the right by two places 23.4

To multiply a decimal number 0.234 by 1000 shift the decimal point to the right by three places 234.

Solution-04:-

(i) To divide a decimal number by 10, shift the decimal point to Left by one place $\frac{4.7}{10} = 0.47$.

~~cs~~ To divide a decimal number by 100, shift the decimal point by to Left by ~~one~~^{two} place $\frac{4.7}{100} = 0.047$.

To divide a decimal number by 1000, shift the decimal point to Left by three places $\frac{4.7}{1000} = 0.0047$.

(ii) 3.45

$$\frac{3.45}{10} = 0.345$$

$$\frac{3.45}{100} = 0.0345$$

$$\frac{3.45}{1000} = 0.00345$$

(iii) 23.01

$$\frac{23.01}{10} = 2.301$$

$$\frac{23.01}{100} = 0.2301$$

$$\frac{23.01}{1000} = 0.02301$$

Exercise-7.5

Solution-01:-

(i) 75 Paise

$$1 \text{ Rs} = 100 \text{ Paise.}$$

$$75 \text{ Paise} = \frac{75}{100}$$

$$= ₹0.75$$

$$(ii) 1025 \text{ Paise} = ₹ \frac{1025}{100}$$

$$= ₹10.25 \text{ Paise}$$

(iii) 63 rupees 9 paise

$$= 6309 \text{ paise}$$

$$= ₹ \frac{6309}{100}$$

$$= ₹63.09 \text{ paise.}$$

Solution-02:-

$$1 \text{ cm} = 10 \text{ mm}$$

$$(i) 8 \text{ mm} = \frac{8}{10} \text{ cm}$$

$$= 0.8 \text{ cm}$$

$$(ii) 263 \text{ mm} = \frac{263}{10} \text{ cm}$$

$$= 26.3 \text{ cm}$$

$$(iii) 13 \text{ cm } 3 \text{ mm} = 13 \times 10 + 3 \text{ mm}$$

$$= 133 \text{ mm}$$

$$= \frac{133}{10} \text{ cm}$$

$$= 13.3 \text{ cm.}$$

Solution -03:-

(i) 1 metre = 100 cm

$$6 \text{ cm} = \frac{6}{100} \text{ m}$$

$$= 0.06 \text{ m}$$

(ii) 528 cm

$$528 \text{ cm} = \frac{528}{100}$$

$$= 5.28 \text{ m}$$

(iii) 7 m 55 cm = 700 cm + 55 cm

$$= 755 \text{ cm}$$

$$= \frac{755}{100} \text{ m}$$

$$= 7.55 \text{ m}$$

(iv) Solution -04:-

1 km = 1000 meters

(i) 5 m = $\frac{5 \text{ m}}{1000} \text{ km}$

$$= 0.005 \text{ km}$$

(ii) 888 m = $\frac{888}{1000} \text{ km}$

$$= 0.888 \text{ km}$$

(iii) 15 km 88 m = 15000 m + 88 m

$$= \frac{15088}{1000} \text{ km}$$

$$= 15.088 \text{ km}$$

Solution-05:-

(i) $1 \text{ kg} = 1000 \text{ gms}$

$$37 \text{ g} = \frac{37}{1000} \text{ kg}$$
$$= 0.037 \text{ kg}$$

(ii) $100 \text{ g} = \frac{100}{1000} \text{ kg}$

$$= 0.1 \text{ kg}$$

(iii) $5 \text{ kg } 8 \text{ g} = 5000 + 8 \text{ g}$

$$= \frac{5008}{1000}$$
$$= 5.008 \text{ kg.}$$

Solution-06:-

cloth required for her shirt = 2 m 70 cm

cloth required for her trouser = 2 m 85 cm

$$\begin{aligned} \text{Total length of the cloth bought by her} &= 2 \text{ m } 70 \text{ cm} \\ &\quad \underline{2 \text{ m } 85 \text{ cm}} \\ &= 4 \text{ m } 155 \text{ cm} \\ &= 400 \text{ cm} + 155 \text{ cm} \\ &= 555 \text{ cm.} \end{aligned}$$

$$\therefore \text{Total cloth required} = \frac{555}{100} \text{ m}$$
$$= 5.55 \text{ m}$$

Solution-07:-

Sunita travelled to by bus = 15 km 268 m. = 15268 m
" by car = 7 km 7 m. = 7007 m
" by foot = 500 m. = 500 m

$$\begin{aligned}
 \text{Total travelled distance by Sunita} &= 15268 + 7007 \\
 &\quad + 5000 \\
 &= 22275 + 500 \\
 &= 22,775 \text{ m}
 \end{aligned}$$

$$\begin{aligned}
 \therefore \text{Total travelled distance} &= \frac{22,775}{1000} \\
 &= 22.775 \text{ km.}
 \end{aligned}$$

Solution - 08:-

$$\text{Apples weight} = 4 \text{ kg } 90 \text{ g} = 4090 \text{ gm.}$$

$$\text{Grapes weight} = 2 \text{ kg } 60 \text{ g} = 2060 \text{ gm}$$

$$\text{Mangoes weight} = 5 \text{ kg } 300 \text{ g} = 5300 \text{ gm.}$$

$$\begin{array}{r}
 \text{Total weight of fruits} = 4090 + \\
 \quad \quad \quad \quad \quad \quad \quad 2060 + \\
 \quad \quad \quad \quad \quad \quad \quad \quad \quad 5300 \\
 \hline
 11,450 \text{ gms}
 \end{array}$$

$$\therefore \text{Total weight of fruits} = 11 \text{ kg } 450 \text{ gms.}$$

Solution - 09:-

$$\text{Total money} = ₹ 18.50.$$

$$\text{Price of ice cream} = ₹ 11.75.$$

$$\text{Rani has money} = ₹ 18.50$$

$$\begin{array}{r}
 - ₹ 11.75 \\
 \hline
 6.75
 \end{array}$$

\therefore ₹ 6.75 have now with Rani

Solution-10:-

$$\begin{aligned}\text{Total cloth} &= 20\text{m } 5\text{cm} \\ &= 20 \times 100\text{cm} + 5\text{cm} \\ &= 2000 + 5\text{cm} \\ &= 2005\text{cm}.\end{aligned}$$

$$\begin{aligned}\text{Required curtain for cloth} &= 4\text{m } 50\text{cm} \\ &= 4 \times 100\text{cm} + 50\text{cm} \\ &= 450\text{cm}.\end{aligned}$$

$$\begin{aligned}\text{Length of cloth which left with her} &= 2005 \\ &\quad \underline{450} \\ &= 1,545\text{cm}.\end{aligned}$$

$$\begin{aligned}\therefore \text{cloth Left} &= \frac{1545}{100}\text{cm} \\ &= 15.45\text{m}.\end{aligned}$$

Solution-11:

$$\begin{aligned}\text{Total weight of watermelon} &= 5\text{kg } 300\text{g} \\ &= 5,300\text{gm}.\end{aligned}$$

$$\begin{aligned}\text{She gave watermelon to neighbour} &= 2\text{kg } 680\text{g} \\ &= 2,680\text{gm}.\end{aligned}$$

$$\begin{aligned}\text{Weight of the watermelon left with} \\ \text{Ruby} &= 5300 - 2680 \\ &= 2620\text{gm}.\end{aligned}$$

Solution-12:-

$$\text{cost of 1 metre of cloth} = ₹ 35.80.$$

$$\text{cost of 9.8 metres of cloth} = ₹ 35.80 \times 9.8$$

$$= ₹ 350.84$$

Solution -13:-

$$\text{cement bag weight} = 49.8 \text{ kg.}$$

$$\text{Total weight} = 1792.8 \text{ kg.}$$

$$\text{Number of bags} = \frac{1792.8}{49.8}$$

$$= \frac{17928}{498}$$

$$\begin{array}{r} 36 \\ 498 \overline{) 17928} \\ \underline{1494} \\ 2988 \\ \underline{2988} \\ 0 \end{array}$$

$$\therefore \text{Total number of bags} = 36.$$