

# CLASS NOTES

CLASS: VI

DATE: 27/10/2021

SUBJECT: MATHEMATICS

TOPIC: DECIMALS

## Chapter - 8 (Decimals)

### EXERCISE - 8.1

Q.2 Write the following decimals in the place value table. (a) 19.4 (b) 0.3 (c) 10.6 (d) 205.9

Solution:

Hundreds(100)	Tens(10)	Ones(1)	Tenth(1/10)	Decimal Number
0	1	9	4	19.4
0	0	0	3	0.3
0	1	0	6	10.6
2	0	5	9	205.9

Q.3 Write each of the following as decimals

(a) Seven-tenths =  $7 \times \frac{1}{10} = 0.7$

(b) Two tens and nine-tenths = 2 tens + 0 ones + 9 tenths =  $20 + \frac{9}{10} = 20.9$

(c) Fourteen point six = 14.6

(d) One hundred and two ones =  $1 \times 100 + 2 \times 1 = 100 + 2 = 102$

(e) Six hundred point eight = 600.8

Q.4 Write each of the following as decimals:

(b)  $3 + \frac{7}{10} = 3 + 0.7 = 3.7$

(c)  $200 + 60 + 5 + \frac{1}{10} = 265 + \frac{1}{10} = 265.1$

(d)  $70 + \frac{8}{10} = 70 + 0.8 = 70.8$

(g)  $\frac{3}{2} = \frac{3 \times 5}{2 \times 5} = \frac{15}{10} = 1.5$

(h)  $\frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10} = 0.4$

(i)  $\frac{12}{5} = \frac{12 \times 2}{5 \times 2} = \frac{24}{10} = 2.4$

(j)  $3\frac{3}{5} = 3 + \frac{3}{5} = 3 + \frac{3 \times 2}{5 \times 2} = 3 + \frac{6}{10} = 3 + 0.6 = 3.6$

(k)  $4\frac{1}{2} = 4 + \frac{1}{2} = 4 + \frac{1 \times 5}{2 \times 5} = 4 + \frac{5}{10}$

Q.5 Write the following decimals as fractions. Reduce the fractions to lowest form.

(a)  $0.6 = \frac{6}{10} = \frac{3}{5}$

(b)  $2.5 = \frac{25}{10} = \frac{5}{2}$

$$(c) 1.0 = \frac{\cancel{10}}{\cancel{10}} = 1$$

$$(e) 13.7 = \frac{137}{10}$$

$$(g) 6.4 = \frac{\cancel{64}}{\cancel{10}} = \frac{32}{5}$$

$$(d) 3.8 = \frac{\cancel{38}}{\cancel{10}} = \frac{19}{5}$$

$$(f) 21.2 = \frac{\cancel{212}}{\cancel{10}} = \frac{106}{5}$$

**Q.6** Express the following as cm using decimals. We know that 10 mm = 1 cm, so 1 mm =  $\frac{1}{10}$  cm

$$(a) 2 \text{ mm} = \frac{2}{10} \text{ cm} = 0.2 \text{ cm}$$

$$(b) 30 \text{ mm} = \frac{30}{10} \text{ cm} = 3 \text{ cm}$$

$$(c) 116 \text{ mm} = \frac{116}{10} \text{ cm} = \left(11 + \frac{6}{10}\right) \text{ cm} = 11.6 \text{ cm}$$

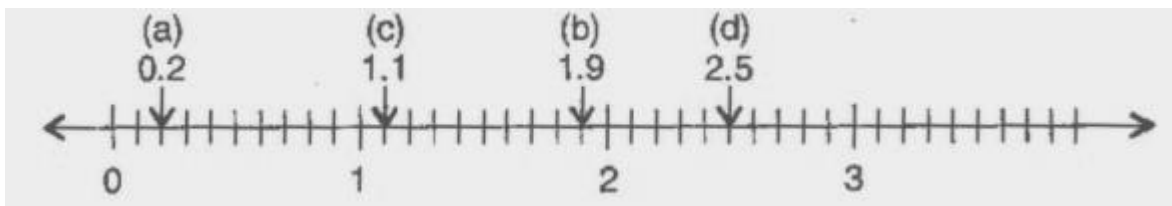
$$(d) 4 \text{ cm } 2 \text{ mm} = 4 \text{ cm} + 2 \text{ mm} = \left(4 + \frac{2}{10}\right) \text{ cm} = 4.2 \text{ cm}$$

$$(e) 162 \text{ mm} = \frac{162}{10} \text{ cm} = \left(16 + \frac{2}{10}\right) \text{ cm} = 16.2 \text{ cm}$$

$$(f) 83 \text{ mm} = \frac{83}{10} \text{ cm} = \left(8 + \frac{3}{10}\right) \text{ cm} = 8.3 \text{ cm}$$

**Q.8.** Show the following numbers on the number line. (a) 0.2 (b) 1.9 (c) 1.1 (d) 2.5

**Solution:**



**10. (a)** The length of Ramesh's notebook is 9 cm 5 mm. What will be its length in cm?

$$\text{Ans: (a) } 9 \text{ cm } 5 \text{ mm} = 9 \text{ cm} + 5 \text{ mm} = 9 + \frac{5}{10} = 9.5 \text{ cm}$$

**(b)** The length of a young gram plant is 65 mm. Express its length in cm.

$$\text{Ans: (b) } 65 \text{ mm} = \frac{65}{10} \text{ cm} = 6.5 \text{ cm.}$$

### **EXERCISE - 8.2**

**Q.2** Write the numbers given in the following place value table in decimal form-

	Hundreds (100)	Tens (10)	Ones (1)	Tenth (1/10)	Hundredth (1/100)	Thousandth (1/1000)	Decimal Form
(a)	0	0	3	2	5	0	3.250
(b)	1	0	2	6	3	0	102.630
(c)	0	3	0	0	2	5	30.025
(d)	2	1	1	9	0	2	211.902
(e)	0	1	2	2	4	1	12.241

**Q.3. Write the following decimals in the place value table.**

	Decimal Form	Hundreds (100)	Tens (10)	Ones (1)	Tenth (1/10)	Hundredth (1/100)	Thousandth (1/1000)
(a)	0.29	0	0	0	2	9	0
(b)	2.08	0	0	2	0	8	0
(c)	19.60	0	1	9	6	0	0
(d)	148.32	1	4	8	3	2	0
(e)	200.812	2	0	0	8	1	2

**4. Write each of the following as decimals.**

**Solutions:**

$$\begin{aligned} \text{a) } 20 + 9 + \frac{4}{10} + \frac{1}{100} \\ = 29 + 0.4 + 0.01 \\ = 29.41 \end{aligned}$$

$$\begin{aligned} \text{(b) } 137 + \frac{5}{100} \\ = 137 + 0.05 \\ = 137.05 \end{aligned}$$

$$\begin{aligned} \text{c) } \frac{7}{10} + \frac{6}{100} + \frac{4}{1000} \\ = 0.7 + 0.06 + 0.004 = 0.764 \end{aligned}$$

$$\begin{aligned} \text{(d) } 23 + \frac{2}{10} + \frac{6}{1000} \\ = 23 + 0.2 + 0.006 \\ = 23.206 \end{aligned}$$

$$\begin{aligned} \text{(e) } 700 + 20 + 5 + \frac{9}{100} \\ = 725 + 0.09 = 725.09 \end{aligned}$$

**5. Write each of the following decimals in words -**

**Solutions: The following are the decimals in words**

(a) 0.03 = zero point zero three

(b) 1.20 = one point two zero

(c) 108.56 = one hundred eight point five six

(d) 10.07 = ten point zero seven

(e) 0.032 = zero point zero three two

(f) 5.008 = five point zero zero eight

**6. Between which two numbers in tenths place on the number line does each of the given number lie?**

**Solutions:**

(a) 0.60 lies between 0 and 0.1 in tenths place

(b) 0.45 lies between 0.4 and 0.5 in tenths place

(c) 0.19 lies between 0.1 and 0.2 in tenths place

(d) 0.66 lies between 0.6 and 0.7 in tenths place

(e) 0.92 lies between 0.9 and 1.0 in tenths place

(f) 0.57 lies between 0.5 and 0.6 in tenths place

**Home Work** Ch.8, Ex. - 8.1 Q.1, Q.4(a,e,f), Q.7, Q.9

**Note: The above contents / document is prepared at home**