

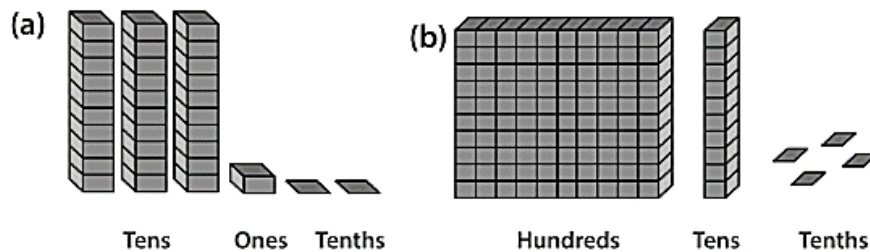
Board -CBSE

Class - 6<sup>th</sup>

Topic - Decimals Ex:8.1

### Exercise - 8.1

1. Write the following numbers in the given table.



Hundreds	Tens	Ones	Tenths
(100)	(10)	(1)	(1 / 10)

Ans.

Rows	Hundreds	Tens	Ones	Tenths
a	0	3	1	2
b	1	1	0	4

2. Write the following decimals in the place value table.

(a) 19.4

(b) 0.3

(c) 10.6

(d) 205.9

Ans.

	Hundreds	Tens	Ones	Tenths
19.4	0	1	9	4
0.3	0	0	0	3
10.6	0	1	0	6
205.9	2	0	5	9

3. Write each of the following as decimals:

(a) Seven-tenths

(b) Two tens and nine-tenths

(c) Fourteen point six

(d) One hundred and two ones

(e) Six hundred point eight

- Ans.**
- (a) The decimal form of Seven-tenths is  $7 / 10 = 0.7$
  - (b) The decimal form of two tens and nine tenths is  $20 + 9 / 10 = 20.9$
  - (c) The decimal form of fourteen point six is 14.6
  - (d) The decimal form of one hundred and two ones is  $100 + 2 = 102.0$
  - (e) The decimal form of six hundred point eight is 600.8

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

- |                     |                     |                             |
|---------------------|---------------------|-----------------------------|
| (a) $5 / 10$        | (b) $3 + 7 / 10$    | (c) $200 + 60 + 5 + 1 / 10$ |
| (d) $70 + 8 / 10$   | (e) $88 / 10$       | (f) $4 \frac{2}{10}$        |
| (g) $3 / 2$         | (h) $2 / 5$         | (i) $12 / 5$                |
| (j) $3 \frac{3}{5}$ | (k) $4 \frac{1}{2}$ |                             |

- Ans.**
- (a)  $5 / 10 = 0.5$
  - (b)  $3 + 7 / 10 = 3 + 0.7$   
 $= 3.7$
  - (c)  $200 + 60 + 5 + 1 / 10 = 265 + 0.1$   
 $= 265.1$
  - (d)  $70 + 8 / 10 = 70 + 0.8$   
 $= 70.8$
  - (e)  $88 / 10 = 80 / 10 + 8 / 10$   
 $= 8 + 0.8$   
 $= 8.8$
  - (f)  $4 \frac{2}{10} = 4 + \frac{2}{10}$   
 $= 4 + 0.2$   
 $= 4.2$
  - (g)  $3 / 2 = (2 + 1) / 2$   
 $= 2 / 2 + 1 / 2$   
 $= 1 + 0.5$   
 $= 1.5$
  - (h)  $2 / 5 = 0.4$
  - (i)  $12 / 5 = (10 + 2) / 5$   
 $= 10 / 5 + 2 / 5$   
 $= 2 + 0.4$

$$= 2.4$$

$$(j) \quad 3\frac{3}{5} = 3 + \frac{3}{5}$$

$$= 3 + 0.6$$

$$= 3.6$$

$$(k) \quad 4\frac{1}{2} = 4 + \frac{1}{2}$$

$$= 4 + 0.5$$

$$= 4.5$$

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

(a) 0.6

(b) 2.5

(c) 1.0

(d) 3.8

(e) 13.7

(f) 21.2

(g) 6.4

**Ans.** (a)  $0.6 = 6 / 10$

$$= 3 / 5$$

(b)  $2.5 = 25 / 10$

$$= 5 / 2$$

(c)  $1.0 = 1$

$$= 1$$

(d)  $3.8 = 38 / 10$

$$= 19 / 5$$

(e)  $13.7 = 137 / 10$

(f)  $21.2 = 212 / 10$

$$= 106 / 5$$

(g)  $6.4 = 64 / 10$

$$= 32 / 5$$

6. Express the following as cm using decimals.

(a) 2 mm

(b) 30 mm

(c) 116 mm

(d) 4 cm 2 mm

(e) 162 mm

(f) 83 mm

**Ans.** We know that

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

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

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

$$= 0.2 \text{ cm}$$

$$(b) 30 \text{ mm} = 30 / 10 \text{ cm} \\ = 3.0 \text{ cm}$$

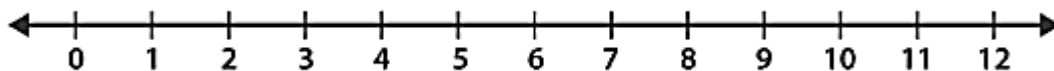
$$(c) 116 \text{ mm} = 116 / 10 \text{ cm} \\ = 11.6 \text{ cm}$$

$$(d) 4 \text{ cm } 2 \text{ mm} = [(4 + 2 / 10)] \text{ cm} \\ = 4.2 \text{ cm}$$

$$(e) 162 \text{ mm} = 162 / 10 \text{ cm} \\ = 16.2 \text{ cm}$$

$$(f) 83 \text{ mm} = 83 / 10 \text{ cm} \\ = 8.3 \text{ cm}$$

7. Between which two whole numbers on the number line do the given numbers lie?  
Which of these whole numbers is nearer the number?



- (a) 0.8                                      (b) 5.1                                      (c) 2.6  
(d) 6.4                                      (e) 9.1                                      (f) 4.9

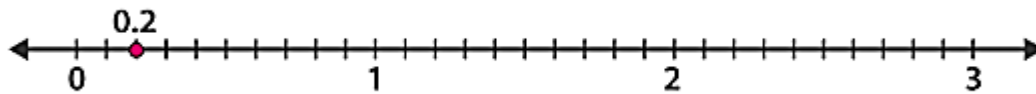
- Ans.** (a) 0.8 lies between 0 and 1  
0.8 is nearer to 1  
(b) 5.1 lies between 5 and 6  
5.1 is nearer to 5  
(c) 2.6 lies between 2 and 3  
2.6 is nearer to 3  
(d) 6.4 lies between 6 and 7  
6.4 is nearer to 6  
(e) 9.1 lies between 9 and 10  
9.1 is nearer to 9  
(f) 4.9 lies between 4 and 5  
4.9 is nearer to 5

8. Show the following numbers on the number line.

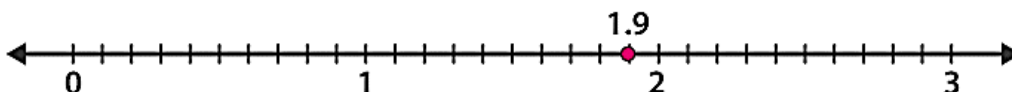
- (a) 0.2                                      (b) 1.9                                      (c) 1.1                                      (d) 2.5

- Ans.** (a) 0.2 lies between the points 0 and 1 on the number line.  
The space between 0 and 1 is divided into 10 equal parts.

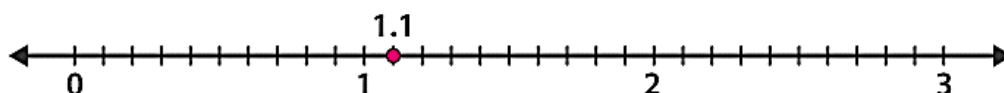
Therefore each equal part will be equal to one-tenth. 0.2 is the second point between 0 and 1



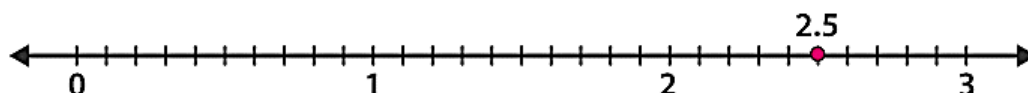
(b) 1.9 lies between points 1 and 2 on the number line. The space between 1 and 2 is divided into 10 equal parts. Therefore each equal part will be equal to one-tenth. 1.9 is the ninth point between 1 and 2



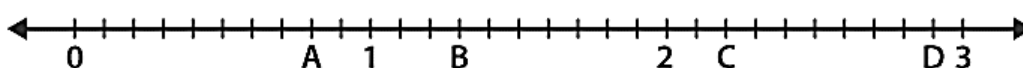
(c) 1.1 lies between points 1 and 2 on the number line such that the space between 1 and 2 is divided into 10 equal parts. Therefore each equal part will be equal to one-tenth. 1.1 is the first point between 1 and 2



(d) 2.5 lies between points 2 and 3 on the number line such that the space between 2 and 3 is divided into 10 equal parts. Therefore each equal part will be equal to one-tenth. 2.5 is the fifth point between 2 and 3



9. Write the decimal number represented by the points A, B, C, and D on the given number line.



- Ans.**
- (a) Point A represents 0.8 cm on the given number line.
  - (b) Point B represents 1.3 cm on the given number line
  - (c) Point C represents 2.2 cm on the given number line
  - (d) Point D represents 2.9 cm on the given number line

10. (a) The length of Ramesh's notebook is 9 cm 5 mm. What will be its length in cm?  
 (b) The length of a young gram plant is 65 mm. Express its length in cm.

**Ans.** (a) The length of Ramesh notebook is 9 cm 5 mm

The length in cm is  $[(9 + 5 / 10)]$  cm  
= 9.5 cm

(b) The length of a gram plant is 65 mm

Hence, the length in cm is  $65 / 10$   
= 6.5 cm