Cosmo School

Chapter – 7

Decimal Fraction

Lecture Sheet - 1

Decimal Fraction: A fraction where the denominator (the bottom number) is a power of ten (such as 10 , 100 , 1000 etc).

$$\frac{53}{100} = 0.53$$

Decimal point

If we divide any number by 10,100,100.......etc, the decimal point moves to the left as many as the number of 0 s. Here we can see that 53/ 53.0 is divided by 100 so the decimal point moves 2 digits left because 100 das 2 zeros.

You can write decimal fractions with a decimal point (and no denominator), which make it easier to do calculation like addition and multiplication on fraction.

Example: i) $\frac{7}{10}$ is a decimal fraction and it can be shown as 0.7.

ii) $\frac{43}{100}$ is a decimal fraction and it can be shown as 0.43.
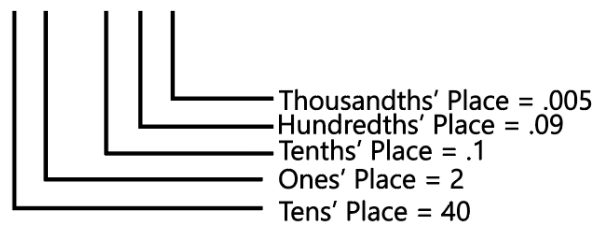
iii) $\frac{51}{1000}$ is a decimal fraction and it can be shown as 0.051

Place value and decimal

Name of place	Tens' place	Ones' place		Tenths' place	Hundredths' place	Thousandths' place
Unit	10	1		0.1	0.01	0.001
Number	4	2	•	1	9	5

Tenths' place = 0.1, hundredths place = 0.01, Thousandth's place = 0.001

4 2 . 1 9 5

Thousandths' Place = .005
Hundredths' Place = .09
Tenths' Place = .1
Ones' Place = 2
Tens' Place = 40

In multiplying 1 by 10 and dividing 1 by 10, we have the following number.

```
        ×10          ×10          ×10          ×10          ×10
100 ←       10 ←        1←          0.1 ←       0.01←      0.001
    →            →           →            →           →
    ÷10          ÷10          ÷10          ÷10          ÷10
```
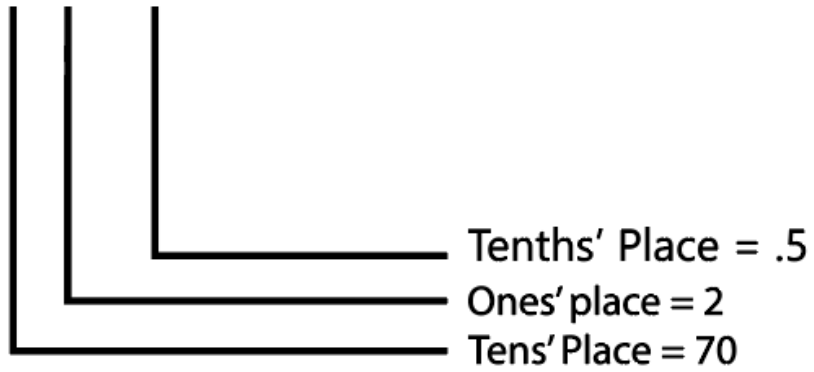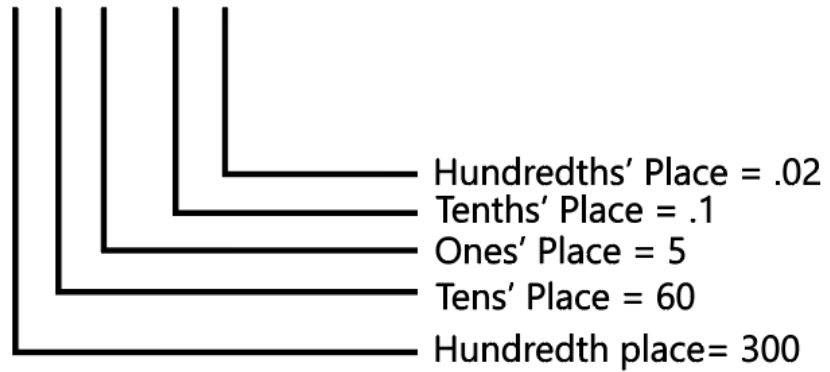
1.Find the place value of
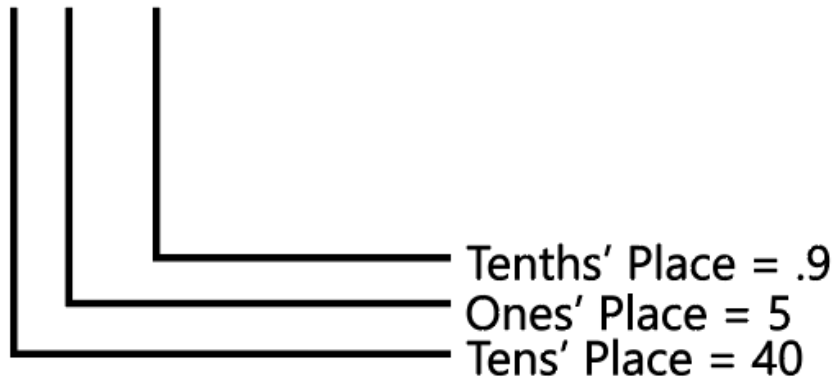
        A) 72.5

        B)365.12

        C) 45.9

        D)676.458

        E)98.672

Solution

A)

72.5

Tenths' Place = .5
Ones' place = 2
Tens' Place = 70

B)

365.12

Hundredths' Place = .02
Tenths' Place = .1
Ones' Place = 5
Tens' Place = 60
Hundredth place= 300

C)

4 5 . 9

Tenths' Place = .9
Ones' Place = 5
Tens' Place = 40

D)

6 7 6 . 4 5 8

Thousandths' Place = .008
Hundredths' Place = .05
Tenths' Place = .4
Ones' Place = 6
Tens' Place = 70

Hundredth place= 600

E)

9 8 . 6 7 2

Thousandths' Place = .002
Hundredths' Place = .07
Tenths' Place = .6
Ones' Place = 8
Tens' Place = 90