Answers

(1) 5.68

Step 1

The number name given in the question is five and sixty-eight-hundredths. We know that hundredths can be represented as $\frac{1}{100}$. So, we can write five and sixty-eight-hundredths as 5 and $\frac{68}{100}$ i.e., $5\frac{68}{100}$.

Step 2

Now, let us convert the mixed fraction into an improper fraction.

$$5\frac{68}{100} = \frac{5 \times 100 + 68}{100} = \frac{568}{100}$$

Step 3

Now, we have to write down the above fraction into the decimal fraction form.

We know, $\frac{1}{100}$ can be written as 0.01.

Therefore, $\frac{568}{100}$ can be written as 5.68.

Step 4

Hence, **5.68** is the required decimal fraction.

(2) 3 Tenths

Step 1

Let us draw the place value chart to find where the digit 3 is placed in the given number: 21953764

Lakhs		Thousands			Ones			Tenths	Hundredths	Thousandths	Ten thousandths
TL	L	TTH	TH	H	T	O	.	(1/10)	(1/100)	(1/1000)	(1/10000)
			2	1	9	5	.	3	7	6	4

Legend:

TL - Ten Lakhs, L - Lakhs, TTH - Ten Thousands, TH - Thousands, H - Hundreds, T - Tens, O - Ones.

Step 2

From the above table, we observe that 3 is placed under the Tenths place.

Step 3

Hence, the place value of 3 in 2195.3764 is 3 Tenths.

(3) 0.002

Step 1

Let us first write the given number name as a fraction:

$$\frac{2}{1000}$$

Step 2

Converting the fraction into a decimal number, we get:

$$\frac{2}{1000} = 0.002$$

(4) <

Step 1

In the given problem we must first compare the whole numbers. Here, we see that the whole part for both the numbers is ‘0’ and hence is equal.

Step 2

However, we know that the given two numbers are not equal. So, let us compare the fractional part.

Step 3

Comparing the fractional part of the two numbers, we find that .000428 **<** .0418.

Step 4

Hence, 0.000428 **<** 0.0418.

(5) 60.55

Step 1

We know the definition of decimal fraction and decimals:
Decimal fraction: is a fraction whose denominator is a power of ten such as 10, 100, 1000 etc.
A decimal number, or just **decimal**, refers to any number written in decimal notation. In a number written in decimal notation, all digits to the left of the decimal point have face values more than one and those on the right of the decimal point have face values less than one.

Step 2

We should remember the following facts about decimal numbers:
Fact 1. When a decimal number is multiplied by ten, the result is obtained by moving the decimal point to the right by one digit.
Fact 2. When a decimal number is divided by ten, the result is obtained by moving the decimal point to the left by one digit.
Fact 3. When a number does not have a decimal point, we can assume that there is a hidden decimal point to the right of the units digit (right-most digit).

Step 3

Now, let us try to convert the decimal fraction $\frac{6055}{100}$ to its decimal form.

Step 4

Here, the number 6055 is to be divided by 100. In other words, we can say that 6055 is to be divided by 10 two times.

Step 5

In number 6055, the decimal point can be assumed to be hidden to the right of the units digit. When it is divided two times by 10, the decimal point will move two digits to the left. Hence, the decimal number thus formed is:
60.55

Step 6

Therefore, the correct answer is 60.55.

(6) **A)** $25\frac{1}{10}$

Step 1

We can see that there is one digit to the right of the decimal point in the given number.

Step 2

To express the number in its fraction form,we will remove the given decimal point. The number ,thus formed, becomes the numerator while 10 becomes the denominator.

Step 3

Thus the equivalent fraction is $\frac{251}{10}$, or $25\frac{1}{10}$, when expressed as a mixed fraction.

B) $3\frac{3}{10}$

Step 1

We can see that there is one digit to the right of the decimal point in the given number.

Step 2

To express the number in its fraction form,we will remove the given decimal point. The number ,thus formed, becomes the numerator while 10 becomes the denominator.

Step 3

Thus the equivalent fraction is $\frac{33}{10}$, or $3\frac{3}{10}$, when expressed as a mixed fraction.

C) $14\frac{2}{10}$

Step 1

We can see that there is one digit to the right of the decimal point in the given number.

Step 2

To express the number in its fraction form,we will remove the given decimal point. The number ,thus formed, becomes the numerator while 10 becomes the denominator.

Step 3

Thus the equivalent fraction is $\frac{142}{10}$, or $14\frac{2}{10}$, when expressed as a mixed fraction.

D) $\frac{2}{10}$

Step 1

We can see that there is one digit to the right of the decimal point in the given number.

Step 2

To express the number in its fraction form,we will remove the given decimal point. The number ,thus formed, becomes the numerator while 10 becomes the denominator.

Step 3

Thus the equivalent fraction is $\frac{2}{10}$.

(7) 15000.5006

Step 1

Let us first convert the number names into numerals:
6 Ten thousandths = 6 ÷ 10000 = 0.0006
5 Tenths = 5 ÷ 10 = 0.5
15 Thousands = 15 × 1000 = 15000

Step 2

Let us first add the decimal numbers as below:

	Lakhs		Thousands				Ones		Tenths	Hundredths	Thousandths	Ten thousandths
	TL	L	TTH	TH	H	T	O	.	(1/10)	(1/100)	(1/1000)	(1/10000)
+							0	.	0	0	0	6
+							0	.	5	0	0	0
Total							0	.	5	0	0	6

Legend:
TL - Ten Lakhs, L - Lakhs, TTH - Ten Thousands, TH - Thousands, H - Hundreds, T - Tens, O - Ones.

Step 3

Let us now add the decimal numbers to the whole number:

	Lakhs		Thousands				Ones		Tenths	Hundredths	Thousandths	Ten thousandths
	TL	L	TTH	TH	H	T	O	.	(1/10)	(1/100)	(1/1000)	(1/10000)
+							0	.	5	0	0	6
+			1	5	0	0	0	.	0	0	0	0
Total			1	5	0	0	0	.	5	0	0	6

Step 4

Therefore, by adding 6 Ten thousandths and 5 Tenths together to 15 Thousands, we get **15000.5006**.

(8) 895.55

Step 1

Decimals with the same number of decimal places are called **Like Decimals**. The numbers given here are therefore *Like Decimals*.

Step 2

In order to add the given *Like Decimals*, let us arrange the digits according to their place value, i.e., one below the other to make sure that the decimals are also placed exactly below each other. In this manner, we will place the ones digit below the ones, the tenths digit below the tenths ,and so on.

Step 3

We should remember that the decimal point in the answer should be placed at the same place as in the addends.

Step 4

Let us add the numbers, digit by digit, starting from the hundredths and carry over, if needed:

Thousands	**Hundreds**	**Tens**	**Ones**	**.**	**Tenth**	**Hundredth**
	8	1	2	.	8	2
+		8	2	.	7	3
	8	9	5	.	5	5

Step 5

Hence, when we add the decimals 812.82 and 82.73, we get **895.55.**

(9) 890.54

Step 1

Decimals with the same number of decimal places are called **Like Decimals**. The numbers given here are therefore *Like Decimals*.

Step 2

In order to add the given *Like Decimals*, let us arrange the digits according to their place value, i.e., one below the other to make sure that the decimals are also placed correctly. In this manner, we will place the ones digit below the ones, the tenths digit below the tenths ,and so on.

Step 3

We should remember that the decimal point in the answer should be placed at the same place as in the addends.

Step 4

Let us add the numbers, digit by digit, starting from the hundredths and carry over, if needed:

Thousands	Hundreds	Tens	Ones	.	Tenth	Hundredth
	8	3	0	.	2	2
		5	9	.	5	7
+			0	.	7	5
	8	9	0	.	5	4

Step 5

Hence, when we add the decimals 830.22, 59.57, and 0.75, we get **890.54**

(10) 0.2

Step 1

As the number name given in the question is two-tenths. We know that tenths can be written as $\frac{1}{10}$. So, we can write two-tenths as $\frac{2}{10}$.

Step 2

Now, we have to convert $\frac{2}{10}$ into the decimal fraction form.

$\frac{2}{10}$ can be written as 0.2.

Step 3

Hence, **0.2** is the required decimal fraction for two-tenths.

(11) 0.9

Step 1

We know that 6.1 is not a prime number. On close observation, we find that the nearest prime number higher than 6.1 is 7.

Step 2

Therefore, the smallest number that should be added to 6.1 to make it prime = 7 - 6.1 = **0.9**.

(12) 9555.614

Step 1

We have the place values of all the digits given in the question. To form a number, we'll need to add all of them.

Step 2

First let us convert the given fractions into their decimal forms: $\frac{6}{10} = 0.6$, $\frac{1}{100} = 0.01$, $\frac{4}{1000} = 0.004$.

Step 3

9000 + 500 + 50 + 5 + 0.6 + 0.01 + 0.004 = 9555.614.

Step 4

Hence the short form of the above given number is 9555.614.

(13) **b.** 9515.60

Step 1

In the given number name, the numbers given before the point will be represented on the left side of the decimal. The number given after the point will be represented on the right side of the decimal.

Step 2

So,the decimal number for nine thousand five hundred fifteen point six is written as 9515.60.

Step 3

Hence, option **b** is the correct answer.

(14) **a.** 8, 0

Step 1

Let us arrange the decimal number 0.850 in the place value chart.

Hundreds	Tens	Ones	Decimal point	Tenths	Hundredths	Thousandths
		0	.	8	5	0

Step 2

Clearly, 0.850 = 8 tenths + 5 hundredths + 0 thousandths.

Step 3

Hence, option **a** is the correct answer.

(15) **A)** **c.** 498.62

Step 1

Given, 431.77 + 66.85 = _____

We have to add 431.77 and 66.85 .

$$\begin{array}{r} 431.77 \\ +\ 66.85 \\ \hline 498.62 \\ \hline \end{array}$$

Step 2

Therefore, 431.77 + 66.85 = **498.62**

B) **c.** 63.21

Step 1

Given, 398.78 - 335.57 = _____

We have to subtract 335.57 from 398.78 .

$$\begin{array}{r} 398.78 \\ -\ 335.57 \\ \hline 63.21 \\ \hline \end{array}$$

Step 2

Therefore, 398.78 - 335.57 = **63.21**

C) **b.** 549

Step 1

Given, _____ + 64.64 = 613.64
Let us assume the missing number be **x**.
Therefore, **x** + 64.64 = 613.64
or **x** = 613.64 - 64.64

Step 2

Now, we have to subtract 64.64 from 613.64 .

$$\begin{array}{r} 613.64 \\ -\ 64.64 \\ \hline 549.00 \\ \hline \end{array}$$

Therefore, **x** = 549

Step 3

Thus, **549** + 64.64 = 613.64

D) **b.** 13.67

Step 1

Given, 816.49 - 802.82 = _____
We have to subtract 802.82 from 816.49 .

$$\begin{array}{r} 816.49 \\ -\ 802.82 \\ \hline 13.67 \\ \hline \end{array}$$

Step 2

Therefore, 816.49 - 802.82 = **13.67**