

**EXERCISE****PAGE: 57**

In questions 1 to 20, out of the four options, only one answer is correct. Choose the correct answer.

1. The fraction which is not equal to  $\frac{4}{5}$  is

- (A)  $\frac{40}{50}$       (B)  $\frac{12}{15}$       (c)  $\frac{16}{20}$       (d)  $\frac{9}{15}$

**Solution:-**

(D)  $\frac{9}{15}$

All the options given in the question are further simplified as,

(A)  $\frac{40}{50} = \frac{4}{5}$

(B)  $\frac{12}{15}$

Divide both numerator and denominator by 3.

$= \frac{4}{5}$

(C)  $\frac{16}{20}$

Divide both numerator and denominator by 4.

$= \frac{4}{5}$

(D)  $\frac{9}{15}$

Divide both numerator and denominator by 3.

$= \frac{3}{5}$

Therefore,  $\frac{3}{5} \neq \frac{4}{5}$

2. The two consecutive integers between which the fraction  $\frac{5}{7}$  lies are

- (A) 5 and 6      (B) 0 and 1      (C) 5 and 7      (D) 6 and 7

**Solution:-**

(B) 0 and 1

A fraction whose numerator is less than the denominator is called a proper fraction.

So,  $\frac{5}{7} = 0.715$

Therefore,  $\frac{5}{7}$  lies between 0 and 1.

3. When  $\frac{1}{4}$  is written with denominator as 12, its numerator is

- (A) 3      (B) 8      (C) 24      (D) 12

**Solution:-**

(A) 3

$(1 \times 3)/(4 \times 3) = \frac{3}{12}$

Consider,  $\frac{3}{12}$

Divide both numerator and denominator by 3.

$= \frac{1}{4}$

4. Which of the following is not in the lowest form?

- (A)  $7/5$                       (B)  $15/20$                       (C)  $13/33$                       (D)  $27/28$

**Solution:-**

(B)  $15/20$

Divide both numerator and denominator by 5.

$$= \frac{3}{4}$$

5. If  $(5/8) = (20/p)$ , then value of p is

- (A) 23                      (B) 2                      (C) 32                      (D) 16

**Solution:-**

(C) 32

Consider the given fraction,  $(5/8) = (20/P)$

$$P = 20 \times (8/5)$$

$$P = 4 \times 8$$

$$P = 32$$

6. Which of the following is not equal to the others?

- (A)  $6/8$                       (B)  $12/16$                       (C)  $15/25$                       (D)  $18/24$

**Solution:-**

(C)  $15/25$

All the options given in the question are further simplified as,

(A)  $6/8$

Divide both numerator and denominator by 2.

$$= \frac{3}{4}$$

(B)  $12/16$

Divide both numerator and denominator by 4.

$$= \frac{3}{4}$$

(C)  $15/25$

Divide both numerator and denominator by 5.

$$= \frac{3}{5}$$

(D)  $18/24$

Divide both numerator and denominator by 6.

$$= \frac{3}{4}$$

Comparing all results,  $(\frac{3}{4} = \frac{3}{4} = \frac{3}{4}) \neq \frac{3}{5}$

Therefore,  $(\frac{6}{8} = \frac{12}{16} = \frac{18}{24}) \neq \frac{15}{25}$

7. Which of the following fractions is the greatest?

**(A) 5/7****(B) 5/6****(C) 5/9****(D) 5/8****Solution:-**

(B) 5/6

We know that, numerators of all given fraction is same then smaller denominator is the greatest fraction.

$$5/9 < 5/8 < 5/7 < 5/6$$

Therefore, among four options, (B) 5/6 has small denominator. So, it is the greatest fraction.

**8. Which of the following fractions is the smallest?****(A) 7/8****(B) 9/8****(C) 3/8****(D) 5/8****Solution:-**

(C) 3/8

We know that, denominator of all given fraction is same then smaller numerator is the smallest fraction.

$$3/8 < 5/8 < 7/8 < 9/8$$

Therefore, among four options, (C) 3/8 has small numerator. So, it is the smallest fraction.

**9. Sum of 4/17 and 15/17 is****(A) 19/17****(B) 11/17****(C) 19/34****(D) 2/17****Solution:-**

(A) 19/17

If denominators of the given fraction are same we can add both fractions.

$$\begin{aligned}\text{So, } (4/17) + (15/17) \\ &= (4 + 15)/17 \\ &= 19/17\end{aligned}$$

**10. On subtracting 5/9 from 19/9, the result is****(A) 24/9****(B) 14/9****(C) 14/18****(D) 14/0****Solution:-**

(B) 14/9

If denominators of the given fraction are same we can subtract both fractions.

$$\begin{aligned}\text{So, } (19/9) - (5/9) \\ &= (19 - 5)/9 \\ &= 14/9\end{aligned}$$

11. 0.7499 lies between

(A) 0.7 and 0.74

(C) 0.749 and 0.75

(B) 0.75 and 0.79

(D) 0.74992 and 0.75

**Solution:-**

(C) 0.749 and 0.75

0.7499 lies between 0.749 and 0.75

12. 0.023 lies between

(A) 0.2 and 0.3

(C) 0.03 and 0.029

(B) 0.02 and 0.03

(D) 0.026 and 0.024

**Solution: -**

(B) 0.02 and 0.03

0.023 lies between 0.02 and 0.03

13.  $11/7$  can be expressed in the form

(A)  $7\frac{1}{4}$

(B)  $4\frac{1}{7}$

(C)  $1\frac{4}{7}$

(D)  $11\frac{1}{7}$

**Solution:-**

(C)  $1\frac{4}{7}$

14. The mixed fraction  $5\frac{4}{7}$  can be expressed as

(A)  $33/7$

(B)  $39/7$

(C)  $33/4$

(D)  $39/4$

**Solution:-**

(B)  $39/7$

$5\frac{4}{7}$  can be expressed as  $= 5 + (4/7)$

$$= (35 + 4)/7$$

$$= 39/7$$

15.  $0.07 + 0.008$  is equal to

(A) 0.15

(B) 0.015

(C) 0.078

(D) 0.78

**Solution:-**

(C) 0.078

First we have to convert given decimals into like decimals  $= 0.070 + 0.008$

So, sum of 0.070 and 0.008  $= 0.070 + 0.008$

$$= 0.078$$

**16. Which of the following decimals is the greatest?**

- (A) 0.182            (B) 0.0925            (C) 0.29            (D) 0.038

**Solution:-**

(C) 0.29

First we have to convert given decimals into like decimals = 0.1820, 0.0925, 0.2900, 0.0380

Now, by comparing 4 decimal numbers, 0.2900 is the greatest.

**17. Which of the following decimals is the smallest?**

- (A) 0.27            (B) 1.5            (C) 0.082            (D) 0.103

**Solution:-**

(C) 0.082

First we have to convert given decimals into like decimals = 0.270, 1.50, 0.082, 0.103

Now, by comparing 4 decimal numbers, 0.082 is the smallest.

**18. 13.572 correct to the tenths place is**

- (A) 10            (B) 13.57            (C) 14.5            (D) 13.6

**Solution:-**

(D) 13.6

Place value of the place immediately after the decimal point (i.e. tenth place) is  $\frac{1}{10}$ , that of next place (i.e. hundredths place) is  $\frac{1}{100}$  and so on.

13.572 correct to the tenths place is 13.6

**19. 15.8 – 6.73 is equal to**

- (A) 8.07            (B) 9.07            (C) 9.13            (D) 9.25

**Solution:-**

(B) 9.07

First we have to convert given decimals into like decimals = 15.80

Now,  $15.80 - 6.73 = 9.07$

**20. The decimal 0.238 is equal to the fraction**

- (A)  $\frac{119}{500}$             (B)  $\frac{238}{25}$             (C)  $\frac{119}{25}$             (D)  $\frac{119}{50}$

**Solution:-**

(A)  $\frac{119}{500}$

Decimals can be converted into fractions by removing their decimal points and writing 10,100, etc in the denominators, depending upon the number of decimal places in the decimals.

So,  $0.238 = 238/1000$

Divide both numerator and denominator by 2  
 $= 119/500$

**In questions 21 to 44, fill in the blanks to make the statements true:**

**21. A number representing a part of a \_\_\_\_\_ is called a fraction.**

**Solution:-**

A number representing a part of a whole is called a fraction.

Example:  $\frac{1}{4}$ ,  $\frac{3}{4}$ ,  $\frac{1}{5}$ ,  $\frac{3}{6}$  etc.

**22. A fraction with denominator greater than the numerator is called a \_\_\_\_\_ fraction.**

**Solution:-**

A fraction with denominator greater than the numerator is called a proper fraction.

Example:  $\frac{2}{5}$ ,  $\frac{3}{8}$ ,  $\frac{10}{11}$  etc. are proper fractions.

**23. Fractions with the same denominator are called \_\_\_\_\_ fractions.**

**Solution:-**

Fractions with the same denominator are called like fractions.

Example:  $\frac{1}{2}$ ,  $\frac{3}{2}$ ,  $\frac{5}{2}$ ,  $\frac{7}{2}$  etc.

**24.  $13\frac{5}{18}$  is a \_\_\_\_\_ fraction.**

**Solution:-**

Mixed fraction.

**25.  $\frac{18}{5}$  is an \_\_\_\_\_ fraction.**

**Solution:-**

$\frac{18}{5}$  is an improper fraction.

A fraction whose numerator is greater than the denominator is called an improper fraction.

**26.  $\frac{7}{19}$  is a \_\_\_\_\_ fraction.**

**Solution:-**

$7/19$  is a proper fraction.

A fraction whose numerator is less than the denominator is called a proper fraction.

**27.  $5/8$  and  $3/8$  are \_\_\_\_\_ proper fraction.**

**Solution:-**

$5/8$  and  $3/8$  are like proper fraction.

Fractions with same denominators are called like fractions.

**28.  $6/11$  and  $6/13$  are \_\_\_\_\_ proper fractions.**

**Solution:-**

$6/11$  and  $6/13$  are unlike proper fractions.

The denominators are different, then they are called unlike fractions.

**29. The fraction  $6/15$  in simplest form is \_\_\_\_\_.**

**Solution:-**

The fraction  $6/15$  in simplest form is  $2/5$ .

The given fraction  $6/15$ , is further simplified by dividing both numerator and denominator by 3.

$$= 2/5$$

**30. The fraction  $17/34$  in simplest form is \_\_\_\_\_.**

**Solution:-**

The fraction  $17/34$  in simplest form is  $1/2$ .

The given fraction  $17/34$ , is further simplified by dividing both numerator and denominator by 17.

$$= 1/2$$

**31.  $18/135$  and  $90/675$  are proper, unlike and \_\_\_\_\_ fractions.**

**Solution:-**

$18/135$  and  $90/675$  are proper, unlike and equivalent fractions.

Consider the two given fraction,  $18/135$  and  $90/675$

$$\text{So, } (18/135) = (90/675)$$

By cross multiplication, we get

$$(18 \times 675) = (90 \times 135)$$

$$12,150 = 12,150$$

Therefore,  $18/135$  and  $90/675$  are proper, unlike and equivalent fractions.

32.  $8\frac{2}{7}$  is equal to the improper fraction \_\_\_\_\_.

**Solution:-**

$8\frac{2}{7}$  is equal to the improper fraction  $58/7$ .

Given mixed fraction is convert into improper fraction as =  $((7 \times 8) + 2)/7$   
 $= (56 + 2)/7$   
 $= 58/7$

33.  $87/7$  is equal to the mixed fraction \_\_\_\_\_.

**Solution:-**

$87/7$  is equal to the mixed fraction  $12\frac{3}{7}$ .

We know that, mixed fraction = Quotient Remainder/Denominator

$$\begin{array}{r} 12 \\ 7 \overline{) 87} \\ \underline{- 7} \phantom{0} \\ 17 \\ \underline{- 14} \\ 3 \end{array}$$

Therefore,  $87/7$  is equal to the mixed fraction  $12\frac{3}{7}$ .

34.  $9 + (2/10) + (6/100)$  is equal to the decimal number \_\_\_\_\_.

**Solution:-**

$9 + (2/10) + (6/100)$  is equal to the decimal number 9.26.

Fractions with denominators 10,100, etc. can be written in a form, using a decimal point, called decimal numbers or decimals.

$$\begin{aligned} 9 + (2/10) + (6/100) &= 9 + 0.2 + 0.06 \\ &= 9.26 \end{aligned}$$

35. Decimal 16.25 is equal to the fraction \_\_\_\_\_.

**Solution:-**

Decimal 16.25 is equal to the fraction  $16\frac{1}{4}$  or  $65/4$ .

Decimals can be converted into fractions by removing their decimal points and writing 10,100, etc in the denominators, depending upon the number of decimal places in the decimals.



$$16.25 = 1625/100$$

Divide both numerator and denominator by 25.

$$= 65/4$$

$$= 16\frac{1}{4}$$

**36. Fraction  $7/25$  is equal to the decimal number \_\_\_\_\_.**

**Solution:-**

Fraction  $7/25$  is equal to the decimal number 0.28.

Multiply numerator and denominator by 4 to get denominator 100.

$$(7/25) = (7 \times 4)/(25 \times 4)$$

$$= 28/100$$

We know that, fractions with denominators 10, 100, etc. can be written in a form, using a decimal point, called decimal numbers or decimals.

$$= 0.28$$

**37.  $(17/9) + (41/9) =$  \_\_\_\_\_.**

**Solution:-**

$$(17/9) + (41/9) = \underline{58/9}.$$

Fractions with same denominators are called like fractions.

$$\text{Sum of two like fractions} = (17 + 41)/9$$

$$= 58/9$$

**38.  $(67/14) - (24/14) =$  \_\_\_\_\_.**

**Solution:-**

$$(67/14) - (24/14) = \underline{43/14}.$$

Fractions with same denominators are called like fractions.

$$\text{Difference of two fractions} = (67 - 24)/14$$

$$= 43/14$$

**39.  $17/2 + 3\frac{1}{2} =$  \_\_\_\_\_.**

**Solution:-**

$$17/2 + 3\frac{1}{2} = \underline{12}.$$

First we have to convert mixed fraction into improper fraction =  $3\frac{1}{2} = 7/2$

Fractions with same denominators are called like fractions.

$$\text{Sum of two like fractions} = (17/2) + (7/2)$$

$$= (17 + 7)/2$$

$$= 24/2$$

$$= 12$$

**41.  $4.55 + 9.73 = \underline{\hspace{2cm}}$ .**

**Solution:-**

$$4.55 + 9.73 = \underline{14.28}.$$

**42.  $8.76 - 2.68 = \underline{\hspace{2cm}}$ .**

**Solution:-**

$$8.76 - 2.68 = \underline{6.08}.$$

**43. The value of 50 coins of 50 paise = ₹         .**

**Solution:-**

The value of 50 coins of 50 paise = ₹25.

We know that, ₹ 1 = 100 paise

So, 50 coins of 50 paise =  $50 \times 50$

$$= 2500 \text{ paise.}$$

Then,

$$= 2500/100$$

$$= ₹ 25$$

**44. 3 Hundredths + 3 tenths =         .**

**Solution:-**

$$3 \text{ Hundredths} + 3 \text{ tenths} = \underline{0.33}.$$

Place value of the place immediately after the decimal point (i.e. tenth place) is  $1/10$ , that of next place (i.e. hundredths place) is  $1/100$  and so on.

3 Hundredths is written as =  $3 \times (1/100)$

$$= 0.03$$

3 tenths are written as =  $3 \times (1/10)$

$$= 0.3$$

Then sum of 3 Hundredths, 3 tenths =  $0.03 + 0.3$

$$= 0.33$$

**In each of the questions 45 to 65, state whether the statement is true or false:**

**45. Fractions with same numerator are called like fractions.**

**Solution:-**

False.

Fractions with same denominators are called like fractions.

**46. Fraction 18/39 is in its lowest form.**

**Solution:-**

False.

Lowest form of given fraction 18/39

Divide both numerator and denominator by 3,  
 $= 6/13$

**47. Fractions 15/39 and 45/117 are equivalent fractions.**

**Solution:-**

True.

Consider the two given fraction, 15/39 and 45/117

So,  $(15/39) = (45/117)$

By cross multiplication, we get

$(15 \times 117) = (45 \times 39)$

$1,755 = 1,755$

**48. The sum of two fractions is always a fraction.**

**Solution:-**

True.

For example: consider two fractions 10/5 and 15/5.

Sum of two fractions =  $(10 + 15)/5$   
 $= 25/5$   
 $= 5$   
 $= 5/1$

A fraction in which there is no common factor, except 1, in its numerator and denominator is called a fraction in the simplest or lowest form.

When 2 fractions are added, the result in most cases will be a fraction p/q form, but in some case if it does happen to be just a integer, it can always be written with denominator 1 (hence p/q form).

**49. The result obtained by subtracting a fraction from another fraction is necessarily a fraction.**

**Solution:-**

False.

Not necessarily a fraction. But can be written in fraction.

**50. If a whole or an object is divided into a number of equal parts, then each part represents a fraction.**

**Solution:-**

True.

A fraction is a number representing a part of a whole. This whole may be a single object or a group of objects.

For example: consider a circle is divided into 4 equal parts. Out of four equal parts 3 of them are shaded.

So, it can be represented in the form of fraction =  $\frac{3}{4}$

**51. The place value of a digit at the tenths place is 10 times the same digit at the ones place.**

**Solution: -**

False.

Let us assume a digit be 'y'.

The place value of a digit at the tenths place =  $y \times (1/10)$   
=  $y/10$

Then,

The tenths place is 10 times the same digit at the ones place.

$y/10 = 10y$  is not possible.

**52. The place value of a digit at the hundredths place is  $\frac{1}{10}$  times the same digit at the tenths place.**

**Solution:-**

False

Let 'a' be the same digit at tens and hundreds place in a number.

Place value of digit at tens place =  $10 \times a = 10a$

Place value of digit at hundreds place =  $100 \times a = 100a$

Hence, The place value of a digit at the hundreds place is 10 times the same digit at the tens place.

**53. The decimal 3.725 is equal to 3.72 correct to two decimal places.**

**Solution:-**

False.

Consider the given decimal number, 3.725

In the thousandths place has number 5.

Then, hundredths has number 2 it will be increased by 1 number to correct two decimal places.

Therefore, the decimal 3.725 is equal to 3.73 correct to two decimal places.

**54. In the decimal form, fraction  $25/8 = 3.125$**

**Solution:-**

True.

$25/8$  can be further simplified by dividing both numerator and denominator by 8.  
= 3.125

**55. The decimal  $23.2 = 23\frac{2}{5}$**

**Solution:-**

False.

The decimal  $23.2 = 232/10$

Dividing both denominator and numerator by 2, we get.

$$\begin{aligned} &= 116/5 \\ &= 23\frac{1}{5} \end{aligned}$$

**56. The fraction represented by the shaded portion in the adjoining figure is  $3/8$ .**

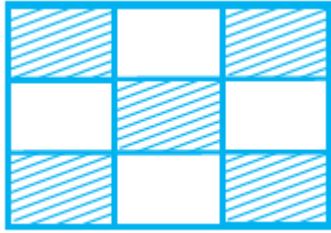


**Solution:-**

True.

Circle is divided into 8 equal parts. Out of 8 equal parts 3 of them are shaded.

**57. The fraction represented by the unshaded portion in the adjoining figure is  $5/9$ .**



**Solution:-**

True.

Rectangle is divided into 9 equal parts. Out of 9 equal parts 5 of them are shaded.  
So, fraction represented by the unshaded portion in the adjoining figure =  $5/9$ .

**58.  $(25/19) + (6/19) = 31/38$**

**Solution:-**

False.

$$\begin{aligned} \text{So, } (25/19) + (6/19) &= (25 + 6)/19 \\ &= 31/19 \end{aligned}$$

Fractions with same denominators are called like fractions.

**59.  $(8/18) - (8/15) = 8/3$**

**Solution:-**

False.

Consider Left Hand Side (LHS),  
LCM of 18 and 15 = 90

Then,

$$(8/18) = (8 \times 5)/(18 \times 5) = 40/90$$

$$(8/15) = (8 \times 6)/(15 \times 6) = 48/90$$

$$\begin{aligned} \text{Difference of two fractions } (40/90) - (48/90) \\ = -8/90 \end{aligned}$$

$$\text{Right Hand Side (RHS)} = 8/3$$

By comparing LHS and RHS,

$$\text{LHS} \neq \text{RHS}$$

$$-8/90 \neq 8/3$$

**60.  $(7/12) + (11/12) = 3/2$**

**Solution:-**

True.

Consider Left Hand Side (LHS),  
Sum of like fractions =  $(7/12) + (11/12)$   
 $= (7 + 11)/12$   
 $= 18/12$

Divide both numerator and denominator by 6, we get,  
 $= 3/2$

Right Hand Side (RHS) =  $3/2$

By comparing LHS and RHS,

$$\text{LHS} = \text{RHS}$$

$$3/2 = 3/2$$

**61.  $3.03 + 0.016 = 3.019$**

**Solution:-**

False.

First we have to convert given decimals into like decimals = 3.030 and 0.016

Sum of two decimals = 3.030

$$\begin{array}{r} + 0.016 \\ \hline 3.046 \end{array}$$

**62.  $42.28 - 3.19 = 39.09$**

**Solution:-**

True.

Subtracting 3.19 from 42.28,

$$\begin{array}{r} 42.28 \\ - 3.19 \\ \hline 39.09 \end{array}$$

**63.  $(16/25) > (13/25)$**

**Solution:-**

True.

Given two fractions are like fractions,

Fractions with same denominators are called like fractions.

So,  $16 > 13$

Therefore,  $(16/25) > (13/25)$

**64.  $19.25 < 19.053$**

**Solution:-**

False.

By comparing tenths place of both fractions =  $2 > 0$

Therefore,  $19.25 > 19.053$

**65.  $13.730 = 13.73$**

**Solution:-**

True.

First we have to convert given decimals into like decimals =  $13.730$

So,  $13.730 = 13.730$

Therefore,  $13.730 = 13.73$

