

CLASS VII

SUBJECT : MATHEMATICS

CHAPTER : 2 (FRACTIONS AND DECIMALS)

HOT'S QUESTIONS AND CASE STUDIES

HOT'S QUESTIONS

Q(1). The product of two proper fractions is ? than each of two fractions.

- (a) GREATER (b) LESS**

Q(2). Choose the correct option:

Every integer can be expressed as a fraction.

- (a) YES (b) NO**

Q(3). Choose the correct option:

Which option/options is/are like fractions?

- (a) $\frac{2}{3}$, $\frac{4}{6}$, $\frac{6}{9}$, $\frac{8}{16}$, $\frac{10}{15}$ (b) $\frac{3}{7}$, $\frac{3}{8}$, $\frac{3}{9}$, $\frac{3}{10}$, $\frac{3}{11}$**

- (c) $\frac{5}{6}$, $\frac{9}{6}$, $\frac{3}{6}$, $\frac{7}{6}$ (d) all of the above**

Q(4). Choose the correct option:

(a) Commutative property and associative property are applicable for addition of fractions.

(b) Commutative property and associative property are applicable for subtraction of fractions.

(c) Commutative property and associative property are applicable for multiplication of fractions.

(d) Commutative property and associative property are applicable for both addition and multiplication of fractions.

Q(5). Convert 6 dm into kilometre.

(a) 0.6 (b) 0.06 (c) 0.006 (d) 0.0006

Q(6). Write the place value of 5 of the given decimal number.

0193.527

(a) ones (b) tens (c) tenths (d) hundredths

Q(7). Mangoes are sold at Rs. $15\frac{3}{5}$ per kg. What is the weight of mangoes available for Rs. $165\frac{1}{10}$?

(a) $127/6$ (b) $127/12$ (c) $135/6$ (d) $156/15$

Q(8).Choose the correct option:

Can we consider 0 as a fractions?

(a) YES (b) NO

Q(9). If $3/4$ of a number is 18, find the number.

(a) 21 (b) 24 (c) 27 (d) 13.5

Q(10). If we multiply 135.123468 by 10000 then decimal point will shift as many places towards ? as many zeros we have over 1.

(a) LEFT (b) RIGHT

Q(11). Solve it : $5/6 + 2/3 \times 9/4 - 3/5$

(a) $31/15$ (b) $28/15$ (c) $34/15$ (d) $26/15$

Q(12). Which is greater? (i) 15.09273 (ii) 15.0927156

(a) 15.09273 (b) 15.0927156

Q(13). There are 56 students in a class and $5/8$ of the students are girls. Find the number of boys in the class.

(a) 35 (b) 8 (c) 21 (d) 42

Q(14). If numerator and denominator of a fraction have no common factor other than 1, then

(a) the fraction is said to be in its simplest form.

(b) the values of the fraction are co-prime to each other.

(c) both option 1 and option 2 are correct.

(d) none of these

Q(15). What do you think?

Can the picture with length $5\frac{2}{9}$ cm and width $1\frac{6}{9}$ cm be framed in a frame with length $5\frac{3}{9}$ cm and width $1\frac{7}{8}$ cm respectively?

(a) YES (b) NO

Q(16). Match the following :

COLUMN A	COLUMN B
(a) 0.00309 divided by 1000	(i) 3.09
(b) 0.00309 X 1000	(ii) 0.01
(c) 0.00309 divided by 0.309	(iii) 0.00095481
(d) 0.00309 X 0.309	(iv) 0.00000309

(a) a(iv), b(ii), c(i), d(iii)

(b) a(iv), b(i), c(iii), d(ii)

(c) a(iv), b(i), c(ii), d(iii)

(d) a(i), b(ii), c(iv), d(iii)

Q(17). Choose the correct options :

Fractional part of the shaded portions of the given figures are equivalent to each other.



(a) YES

(b) NO

Q(18). The fractional representation of the shaded portion of the given figure is



(a) $\frac{2}{5}$ (b) $\frac{2}{7}$ (c) $\frac{5}{7}$ (d) $\frac{5}{8}$

Q(19). Multiplicative inverse of $\frac{8}{15}$ is

(a) $-\frac{8}{15}$ (b) 0 (c) 1 (d) $\frac{15}{8}$

Q(20). If you subtract $\frac{5}{6}$ from $\frac{7}{8}$ then the answer will be

(a) $\frac{1}{48}$ (b) $-\frac{1}{24}$ (c) $-\frac{1}{48}$ (d) $\frac{1}{24}$

Q(21) Find the product of reciprocals of $\frac{24}{75}$ and $\frac{125}{8}$

(a) 5 (b) $\frac{1}{5}$ (c) $\frac{3}{8}$ (d) $\frac{2}{25}$

Q(22). Divide : $15.625 \div 62.5$

(a) 0.025 (b) 0.05 (c) 0.045 (d) 0.25

Q(23). CASE STUDY 1 :

TOPIC : FRACTIONS

There are three friends. Oneday, they have decided to take pizza at evening. So they have bought a pizza and they have divided it into 27 equal parts. Sonia took $\frac{5}{27}$ parts, Rohini took $\frac{7}{27}$ parts and Lisa took $\frac{8}{27}$ parts from it.

Answer the following questions from the above case study :

Q(1). How many parts are still left?

Q(2). If Rohini takes two more parts then the total part of her is how much more than that of the parts of Lisa?

Q(3). If Sonia takes three more parts and Rohini and Lisa divide the rest parts between them equally, then what would be the difference between the total parts of Lisa and total parts of Sonia ?

Q(4). Who amongst them can't take exactly the double parts from the rest parts?

Q(5). One of the three friends would take exactly the double part of the previous one and rest would not take any of the parts. As a result, there would be no left part. Find the friend who would take the double part?

Q(6). Add Sonia's parts with Lisa's parts and subtract Rohini's parts from it.

Q(7). Find the sum of reciprocals of Rohini's parts and Sonia's parts.

Q(8). Write the multiplicative inverse of Lisa's parts.

Q(9). Find the product of reciprocals of Lisa's parts and Sonia's parts.

Q(10). Divide Sonia's parts by Lisa's parts.

Q(24). CASE STUDY 2

TOPIC : FRACTIONS

$$7 \times \frac{1}{3}$$

Answer the following questions for the above fraction :

Q(1). Represent the given fraction using seven figures.

Q(2). How many unshaded parts are there in each figure?

Q(3). Represent the same fraction by less number of figures.

Q(4). How many minimum number of figures are required for representing it?

Q(5). Each fully shaded figure is represented by

(a) a proper fraction (b) an improper fraction (C) a mixed fraction (d) a whole number

Q(25). CASE STUDY 3

TOPIC :DECIMAL NUMBERS

6217.9345

Answer the following questions for the above decimal numbers :

1. Write the decimal number in expanded form.
2. Write each of its place values.
3. If we multiply the given decimal number by 1000 then decimal point will shift in which direction?
4. Divide the given decimal number by 100 and then subtract the new decimal number from the previous one.
5. After multiplying the given number by 1000, the new number obtained is how much more than the previous one?
6. Add 090325.46 with the given number.
7. Subtract the place value of 5 from the place value of 3.
8. Write the reciprocal of place value of 3 and represent it in decimal form.
9. Write the whole number part of the given decimal number.
10. Find the product of place values of 9 and 5 and then represent it in decimal form.

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