



CLASS 7th

learnkwniy

MATHS

CHAPTER- 2nd

Fraction and Decimals

EXERCISE-2.1

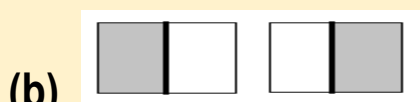
NCERT SOLUTION

1. Which of the drawings (a) to (d) show:

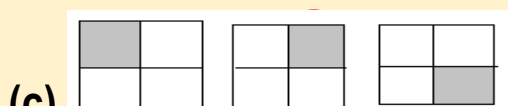
(i) $2 \times \frac{1}{5}$



(ii) $2 \times \frac{1}{2}$



(iii) $3 \times \frac{2}{3}$



(iv) $3 \times \frac{1}{4}$



Ans.

(i) $2 \times \frac{1}{5}$

we can write $2 \times \frac{1}{5}$ as $= \frac{1}{5} + \frac{1}{5}$

Correct answer is (d) as it represent 1 shaded part out of 5 equal parts.

(ii) $2 \times \frac{1}{2}$

we can write $2 \times \frac{1}{2}$ as $= \frac{1}{2} + \frac{1}{2}$

Correct answer is (b) as it represent 1 shaded part out of 2 equal parts.

(iii) $3 \times \frac{2}{3}$

we can write $3 \times \frac{2}{3}$ as $= \frac{2}{3} + \frac{2}{3} + \frac{2}{3}$

Correct answer is (a) as it represent 2 shaded part out of 3 equal parts.

(iv) $3 \times \frac{1}{4}$

we can write $3 \times \frac{1}{4}$ as $= \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

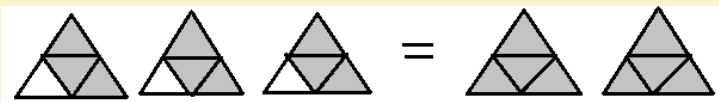
Correct answer is (c) as it represent 1 shaded part out of 4 equal parts.

2. Some pictures (a) to (c) are given below. Tell which of them show:

(i) $3 \times \frac{1}{5} = \frac{3}{5}$ (a)



(ii) $2 \times \frac{1}{3} = \frac{2}{3}$ (b)



(iii) $3 \times \frac{3}{4} = 2\frac{1}{4}$ (c)



Ans.

(i) - (c)

Since, $3 \times \frac{1}{5}$ can be written as $\frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

(ii) - (a)

Since $2 \times \frac{1}{3}$ can be written as $\frac{1}{3} + \frac{1}{3}$

(iii) – (b)

Since $3 \times \frac{3}{4}$ can be written as $\frac{3}{4} + \frac{3}{4} + \frac{3}{4}$

3. Multiply and reduce to lowest form and convert into a mixed fraction:

(i) $7 \times \frac{3}{5}$

Ans.

$$7 \times \frac{3}{5} = \frac{7 \times 3}{5} = \frac{21}{5} = 4\frac{1}{5}$$

(ii) $4 \times \frac{1}{3}$

Ans.

$$4 \times \frac{1}{3} = \frac{4 \times 1}{3} = \frac{4}{3} = 1\frac{1}{3}$$

(iii) $2 \times \frac{6}{7}$

Ans.

$$2 \times \frac{6}{7} = \frac{2 \times 6}{7} = \frac{12}{7} = 1\frac{5}{7}$$

(iv) $5 \times \frac{2}{9}$

Ans.

$$5 \times \frac{2}{9} = \frac{5 \times 2}{9} = \frac{10}{9} = 1\frac{1}{9}$$

(v) $\frac{2}{3} \times 4$

Ans.

$$\frac{2}{3} \times 4 = \frac{2 \times 4}{3} = \frac{8}{3} = 2\frac{2}{3}$$

(vi) $\frac{5}{2} \times 6$

Ans.

$$\frac{5}{2} \times 6 = \frac{5 \times 6}{2} = \frac{30}{2} = 15$$

(vii) $11 \times \frac{4}{7}$

Ans.

$$11 \times \frac{4}{7} = \frac{11 \times 4}{7} = \frac{44}{7} = 6\frac{2}{7}$$

(viii) $20 \times \frac{4}{5}$

Ans.

$$20 \times \frac{4}{5} = \frac{20 \times 4}{5} = 16$$

(ix) $13 \times \frac{1}{3}$

Ans.

$$13 \times \frac{1}{3} = \frac{13 \times 1}{3} = \frac{13}{3} = 4\frac{1}{3}$$

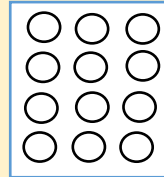
(x) $15 \times \frac{3}{5}$

Ans.

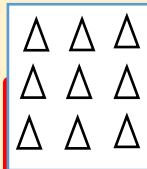
$$15 \times \frac{3}{5} = \frac{15 \times 3}{5} = 9$$

4. Shade:

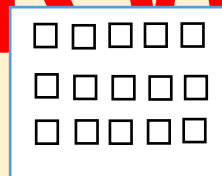
(i) $\frac{1}{2}$ of the circles 12 in box (a)



(ii) $\frac{2}{3}$ of the 9 triangle in box (b)



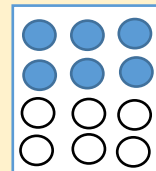
(iii) $\frac{3}{5}$ of the square in box (c)



Ans.

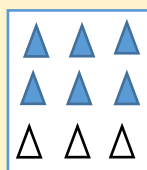
(i) $\frac{1}{2}$ of the 12 circles in box (a)

$$\frac{1}{2} \times 12 = 6 \text{ circles}$$



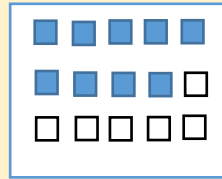
(ii) $\frac{2}{3}$ of the 9 triangle in box (b)

$$\frac{2}{3} \times 9 = 6 \text{ triangle}$$



(iii) $\frac{3}{5}$ of the square in box (c)

$$\frac{3}{5} \times 15 = 9 \text{ square}$$



Que 5 Find:

(a) $\frac{1}{2}$ of (i) 24 (ii) 46

Ans.

(a) (i) $\frac{1}{2}$ of 24 = 12

(ii) $\frac{1}{2}$ of 46 = 23

(b) $\frac{2}{3}$ of (i) 18 (ii) 27

Ans.

(b) (i) $\frac{2}{3}$ of 18 = 12

(ii) $\frac{2}{3}$ of 27 = 18

(c) $\frac{3}{4}$ of (i) 16 (ii) 36

Ans.

(c) (i) $\frac{3}{4}$ of 16 = 12

(ii) $\frac{3}{4}$ of 36 = 27

(d) $\frac{4}{5}$ of (i) 20 (ii) 35

Ans.

(d) (i) $\frac{4}{5}$ of 20 = 16

(ii) $\frac{4}{5}$ of 35 = 28

Que 6. Multiply and express as a mixed fraction:

(a) $3 \times 5\frac{1}{5}$

Ans.

$$3 \times 5\frac{1}{5}$$

$$3 \times \frac{26}{5} = \frac{3 \times 26}{5} = \frac{78}{5} = 15\frac{3}{5}$$

(b) $5 \times 6\frac{3}{4}$

Ans.

$$5 \times 6\frac{3}{4}$$

$$5 \times \frac{27}{4} = \frac{5 \times 27}{4} = \frac{135}{4} = 33\frac{3}{4}$$

(c) $7 \times 2\frac{1}{4}$

Ans.

$$7 \times 2\frac{1}{4}$$

$$7 \times \frac{9}{4} = \frac{7 \times 9}{4} = \frac{63}{4} = 15\frac{3}{4}$$

(d) $4 \times 6\frac{1}{3}$

Ans.

$$4 \times 6\frac{1}{3}$$

$$4 \times \frac{19}{3} = \frac{4 \times 19}{3} = \frac{76}{3} = 25\frac{1}{3}$$

(e) $3\frac{1}{4} \times 6$

Ans.

$$3\frac{1}{4} \times 6 = \frac{13}{4} \times 6 = \frac{13 \times 6}{4} = \frac{39}{2} = 19\frac{1}{2}$$

(f) $3\frac{2}{5} \times 8$

Ans.

$$3\frac{2}{5} \times 8 = \frac{17}{5} \times 8 = \frac{17 \times 8}{5} = \frac{136}{5} = 27\frac{1}{5}$$

Que 7 Find:

(a) $\frac{1}{2}$ of (i) $2\frac{3}{4}$ (ii) $4\frac{2}{9}$

Ans.

(a) (i) $\frac{1}{2}$ of $2\frac{3}{4} = \frac{1}{2}$ of $\frac{11}{4} = \frac{11}{8} = 1\frac{3}{8}$

(ii) $\frac{1}{2}$ of $4\frac{2}{9} = \frac{1}{2}$ of $\frac{38}{9} = \frac{19}{9} = 2\frac{1}{9}$

(b) $\frac{5}{8}$ of (i) $3\frac{5}{6}$ (ii) $9\frac{2}{3}$

Ans.

(a) (i) $\frac{5}{8}$ of $3\frac{5}{6} = \frac{5}{8}$ of $\frac{23}{6} = \frac{115}{48} = 2\frac{19}{48}$

$$(ii) \frac{5}{8} \text{ of } 9\frac{2}{3} = \frac{5}{8} \text{ of } \frac{29}{3} = \frac{145}{24} = 6\frac{1}{24}$$

8. Vidya and Pratap went for a picnic. Their mother gave them a water bottle that contained 5 litres of water. Vidya consumed $\frac{2}{5}$ of the water. Pratap consumed the remaining water.

(i) How much water did Vidya drink?

(ii) What fraction of the total quantity of water did Pratap drink?

Ans.

(i) Total quantity of water in a bottle = 5 litres

Vidya consumed $\frac{2}{5}$ of the 5 litre = $\frac{2}{5} \times 5 = 2$ litres

Thus vidya drank 2 litre of water from the bottle.

(ii) Pratap consumed the remaining water $5 - \frac{2}{5} = \frac{3}{5}$ part of the bottle.

Pratap consumed $\frac{3}{5}$ of the 5 litre = $\frac{3}{5} \times 5 = 3$ litres

Thus, Pratap drank 3 litre of water from the

EXERCISE-2.2

NCERT SOLUTION

Que 1 Find:

(a) $\frac{1}{4}$ of (i) $\frac{1}{4}$ (ii) $\frac{3}{5}$ (iii) $\frac{4}{3}$

Ans.

(a) (i) $\frac{1}{4}$ of $\frac{1}{4} = \frac{1 \times 1}{4 \times 4} = \frac{1}{16}$

(ii) $\frac{1}{4}$ of $\frac{3}{5} = \frac{1 \times 3}{4 \times 5} = \frac{3}{20}$

(iii) $\frac{1}{4}$ of $\frac{4}{3} = \frac{1 \times 4}{4 \times 3} = \frac{1}{3}$

(b) $\frac{1}{7}$ of (i) $\frac{2}{9}$ (ii) $\frac{6}{5}$ (iii) $\frac{3}{10}$

Ans.

(b) (i) $\frac{1}{7}$ of $\frac{2}{9} = \frac{1 \times 2}{7 \times 9} = \frac{2}{63}$

(ii) $\frac{1}{7}$ of $\frac{6}{5} = \frac{1 \times 6}{7 \times 5} = \frac{6}{35}$

(iii) $\frac{1}{7}$ of $\frac{3}{10} = \frac{1 \times 3}{7 \times 10} = \frac{3}{70}$

Que 2. Multiply and reduce to lowest form (if possible):

(i) $\frac{2}{3} \times 2\frac{2}{3}$

Ans.

$$\frac{2}{3} \times 2\frac{2}{3} = \frac{2}{3} \times \frac{8}{3} = \frac{2 \times 8}{3 \times 3} = \frac{16}{9} = 1\frac{7}{9}$$

$$(ii) \frac{2}{7} \times \frac{7}{9}$$

Ans.

$$\frac{2}{7} \times \frac{7}{9} = \frac{2 \times 7}{7 \times 9} = \frac{2}{9}$$

$$(iii) \frac{3}{8} \times \frac{6}{4}$$

Ans.

$$\frac{3}{8} \times \frac{6}{4} = \frac{3 \times 6}{8 \times 4} = \frac{3 \times 3}{8 \times 2} = \frac{9}{16}$$

$$(iv) \frac{9}{5} \times \frac{3}{5}$$

Ans.

$$\frac{9}{5} \times \frac{3}{5} = \frac{9 \times 3}{5 \times 5} = \frac{27}{25} = 1\frac{2}{25}$$

$$(v) \frac{1}{3} \times \frac{15}{8}$$

Ans.

$$\frac{1}{3} \times \frac{15}{8} = \frac{1 \times 15}{3 \times 8} = \frac{1 \times 5}{1 \times 8} = \frac{5}{8}$$

$$(vi) \frac{11}{2} \times \frac{3}{10}$$

Ans.

$$\frac{11}{2} \times \frac{3}{10} = \frac{11 \times 3}{2 \times 10} = \frac{33}{20} = 1 \frac{13}{20}$$

3. Multiply the following fractions:

(i) $\frac{2}{5} \times 5 \frac{1}{4}$

Ans.

$$\frac{2}{5} \times 5 \frac{1}{4} = \frac{2}{5} \times \frac{21}{4} = \frac{2 \times 21}{5 \times 4} = \frac{42}{20} = 2 \frac{2}{20} = 2 \frac{1}{10}$$

(ii) $6 \frac{2}{5} \times \frac{7}{9}$

Ans.

$$6 \frac{2}{5} \times \frac{7}{9} = \frac{32}{5} \times \frac{7}{9} = \frac{32 \times 7}{5 \times 9} = \frac{224}{45} = 4 \frac{44}{45}$$

(iii) $\frac{3}{2} \times 5 \frac{1}{3}$

Ans.

$$\frac{3}{2} \times 5 \frac{1}{3} = \frac{3}{2} \times \frac{16}{3} = \frac{3 \times 16}{2 \times 3} = \frac{48}{6} = 8$$

(iv) $\frac{5}{6} \times 2 \frac{3}{7}$

Ans.

$$\frac{5}{6} \times 2 \frac{3}{7} = \frac{5}{6} \times \frac{17}{7} = \frac{5 \times 17}{6 \times 7} = \frac{85}{42} = 2 \frac{1}{42}$$

$$(v) 3\frac{2}{5} \times \frac{4}{7}$$

Ans.

$$3\frac{2}{5} \times \frac{4}{7} = \frac{18}{5} \times \frac{4}{7} = \frac{18 \times 4}{5 \times 7} = \frac{68}{35} = 1\frac{33}{35}$$

$$(vi) 2\frac{3}{5} \times 3$$

Ans.

$$2\frac{3}{5} \times 3 = \frac{13}{5} \times 3 = \frac{13 \times 3}{5} = \frac{39}{5} = 7\frac{4}{5}$$

$$(vii) 3\frac{4}{7} \times \frac{3}{5}$$

Ans.

$$3\frac{4}{7} \times \frac{3}{5} = \frac{25}{7} \times \frac{3}{5} = \frac{25 \times 3}{7 \times 5} = \frac{75}{35} = 2\frac{5}{35} = 2\frac{1}{7}$$

4. Which is greater:

$$(i) \frac{2}{7} \text{ of } \frac{3}{4} \text{ or } \frac{3}{5} \text{ of } \frac{5}{8}$$

Ans.

$$\frac{2}{7} \text{ of } \frac{3}{4} \text{ or } \frac{3}{5} \text{ of } \frac{5}{8}$$

$$\frac{2}{7} \times \frac{3}{4} \text{ or } \frac{3}{5} \times \frac{5}{8}$$

$$\frac{3}{14} \text{ or } \frac{3}{8}$$

$$\frac{3}{14} < \frac{3}{8}$$

Thus, $\frac{3}{5}$ of $\frac{5}{8}$ is greater.

(ii) $\frac{1}{2}$ of $\frac{6}{7}$ or $\frac{2}{3}$ of $\frac{3}{7}$

Ans.

$\frac{1}{2}$ of $\frac{6}{7}$ or $\frac{2}{3}$ of $\frac{3}{7}$

$\frac{1}{2} \times \frac{6}{7}$ or $\frac{2}{3} \times \frac{3}{7}$

$\frac{3}{7}$ or $\frac{2}{7}$

$\frac{3}{7} > \frac{2}{7}$

Thus, $\frac{3}{7}$ of $\frac{6}{7}$ is greater.

5. Saili plants 4 saplings, in a row, in her garden. The distance between two adjacent saplings is $\frac{3}{4}$ m. Find the distance between the first and the last sapling.

Ans.

The distance between two adjacent saplings = $\frac{3}{4}$ m

Saili plants 4 saplings in a row, then the number of gap in sampling = 3

\therefore The distance between the first and the last saplings =

$$3 \times \frac{3}{4} = \frac{9}{4} = 2\frac{1}{4}\text{m}$$

6. Lipika reads a book for $1\frac{3}{4}$ hours everyday. She reads the entire book in 6 days. How many hours in all were required by her to read the book?

Ans.

Time taken by lipika to read a book = $1\frac{3}{4}$ hours

She read the entire book in 6 days

Total hours taken by her to read the entire book = $1\frac{3}{4} \times 6$
 $= \frac{7}{4} \times 6 = \frac{21}{2} = 10\frac{1}{2}$ hours

7. A car runs 16 km using 1 litre of petrol. How much distance will it cover using $2\frac{3}{4}$ litres of petrol?

Ans.

In 1 litre petrol, car covers the distance = 16km

In $2\frac{3}{4}$ litres of petrol car covers the distance = $16 \times 2\frac{3}{4}$ litres

$$= 16 \times \frac{11}{4} = 44\text{km}$$

8. (a) (i) Provide the number in the box \square , such that $\frac{2}{3} \times \square = \frac{10}{30}$

(ii) The simplest form of the number obtained in \square is _____.

(b) (i) Provide the number in the box \square , such that $\frac{3}{5} \times \square = \frac{24}{75}$.

(ii) The simplest form of the number obtained in \square is _____.

Ans.

$$(a) (i) \frac{2}{3} \times \boxed{\frac{5}{10}} = \frac{10}{30}$$

$$(ii) \frac{5}{10} \text{ is } \frac{1}{2}$$

$$(b) (i) \frac{3}{5} \times \boxed{\frac{8}{15}} = \frac{24}{75}$$

$$(ii) \frac{8}{15} \text{ is } \frac{8}{15}$$

EXERCISE-2.3

NCERT SOLUTION

1. Find:

(i) $12 \div \frac{3}{4}$

Ans.

$$12 \div \frac{3}{4}$$

$$12 \times \frac{4}{3} = 16$$

(ii) $14 \div \frac{5}{6}$

Ans.

$$14 \div \frac{5}{6}$$

$$14 \times \frac{6}{5} = \frac{84}{5} = 16\frac{4}{5}$$

(iii) $8 \div \frac{7}{3}$

Ans.

$$8 \div \frac{7}{3}$$

$$8 \times \frac{3}{7} = \frac{24}{7} = 3\frac{3}{7}$$

(iv) $4 \div \frac{8}{3}$

Ans.

$$4 \div \frac{8}{3}$$

$$4 \times \frac{3}{8} = \frac{3}{2} = 1 \frac{1}{2}$$

(v) $3 \div 2 \frac{1}{3}$

Ans.

$$3 \div 2 \frac{1}{3}$$

$$3 \div \frac{7}{3}$$

$$3 \times \frac{3}{7} = \frac{9}{7} = 1 \frac{2}{7}$$

(vi) $5 \div 3 \frac{4}{7}$

Ans.

$$5 \div 3 \frac{4}{7}$$

$$5 \div \frac{25}{7}$$

$$5 \times \frac{7}{25} = \frac{7}{5} = 1 \frac{2}{5}$$

2. Find the reciprocal of each of the following fractions. Classify the reciprocals as proper fractions, improper fractions and whole numbers.

(i) $\frac{3}{7}$

Ans.

Reciprocal of $\frac{3}{7}$ is $\frac{7}{3}$ i.e., Improper fraction.

(ii) $\frac{5}{8}$

Ans.

Reciprocal of $\frac{5}{8}$ is $\frac{8}{5}$ i.e., Improper fraction.

(iii) $\frac{9}{7}$

Ans.

Reciprocal of $\frac{9}{7}$ is $\frac{7}{9}$ i.e., Proper fraction.

(iv) $\frac{6}{5}$

Ans.

Reciprocal of $\frac{6}{5}$ is $\frac{5}{6}$ i.e., Proper fraction.

(v) $\frac{12}{7}$

Ans.

Reciprocal of $\frac{12}{7}$ is $\frac{7}{12}$ i.e., Proper fraction.

(vi) $\frac{1}{8}$

Ans.

Reciprocal of $\frac{1}{8}$ is $\frac{8}{1} = 8$ i.e., Whole Number.

(vii) $\frac{1}{11}$

Ans.

Reciprocal of $\frac{1}{11}$ is $\frac{11}{1} = 11$ i.e., Improper fraction.

3. Find:

(i) $\frac{7}{3} \div 2$

Ans.

$$\frac{7}{3} \div 2 = \frac{7}{3} \times \frac{1}{2} = \frac{7 \times 1}{3 \times 2} = \frac{7}{6} = 1\frac{1}{6}$$

(ii) $\frac{4}{9} \div 5$

Ans.

$$\frac{4}{9} \div 5 = \frac{4}{9} \times \frac{1}{5} = \frac{4 \times 1}{9 \times 5} = \frac{4}{45}$$

(iii) $\frac{6}{13} \div 7$

Ans.

$$\frac{6}{13} \div 7 = \frac{6}{13} \times \frac{1}{7} = \frac{6 \times 1}{13 \times 7} = \frac{6}{91}$$

(iv) $4\frac{1}{3} \div 3$

Ans.

$$4\frac{1}{3} \div 3 = \frac{13}{3} \div 3 = \frac{13}{3} \times \frac{1}{3} = \frac{13 \times 1}{3 \times 3} = \frac{13}{9} = 1\frac{4}{9}$$

(v) $3\frac{1}{2} \div 4$

Ans.

$$3\frac{1}{2} \div 4 = \frac{7}{2} \times \frac{1}{4} = \frac{7 \times 1}{2 \times 4} = \frac{7}{8}$$

(vi) $4\frac{3}{7} \div 7$

Ans.

$$4\frac{3}{7} \div 7 = \frac{31}{7} \times \frac{1}{7} = \frac{31 \times 1}{7 \times 7} = \frac{31}{49}$$

4. Find:

(i) $\frac{2}{5} \div \frac{1}{2}$

Ans.

$$\frac{2}{5} \div \frac{1}{2} = \frac{2}{5} \times \frac{2}{1} = \frac{2 \times 2}{5 \times 1} = \frac{4}{5}$$

(ii) $\frac{4}{9} \div \frac{2}{3}$

Ans.

$$\frac{4}{9} \div \frac{2}{3} = \frac{4}{9} \times \frac{3}{2} = \frac{2}{3}$$

(iii) $\frac{3}{7} \div \frac{8}{7}$

Ans.

$$\frac{3}{7} \div \frac{8}{7} = \frac{3}{7} \times \frac{7}{8} = \frac{3 \times 7}{7 \times 8} = \frac{3}{8}$$

(iv) $2\frac{1}{3} \div \frac{3}{5}$

Ans.

$$2\frac{1}{3} \div \frac{3}{5} = \frac{7}{3} \div \frac{3}{5} = \frac{7}{3} \times \frac{5}{3} = \frac{7 \times 5}{3 \times 3} = \frac{35}{9} = 3\frac{8}{9}$$

(v) $3\frac{1}{2} \div \frac{8}{3}$

Ans.

$$3\frac{1}{2} \div \frac{8}{3} = \frac{7}{2} \div \frac{8}{3} = \frac{7}{2} \times \frac{3}{8} = \frac{7 \times 3}{2 \times 8} = \frac{21}{16} = 1\frac{5}{16}$$

(vi) $\frac{2}{5} \div 1\frac{1}{2}$

Ans.

$$\frac{2}{5} \div 1\frac{1}{2} = \frac{2}{5} \div \frac{3}{2} = \frac{2}{5} \times \frac{2}{3} = \frac{2 \times 2}{5 \times 3} = \frac{4}{15}$$

(vii) $3\frac{1}{5} \div 1\frac{2}{3}$

Ans.

$$3\frac{1}{5} \div 1\frac{2}{3} = \frac{16}{5} \div \frac{5}{3} = \frac{16}{5} \times \frac{3}{5} = \frac{16 \times 3}{5 \times 5} = \frac{48}{25} = 1\frac{23}{25}$$

(viii) $2\frac{1}{5} \div 1\frac{1}{5}$

Ans.

$$2\frac{1}{5} \div 1\frac{1}{5} = \frac{11}{5} \div \frac{6}{5} = \frac{11}{5} \times \frac{5}{6} = \frac{11}{6} = 1\frac{5}{6}$$

EXERCISE-2.4

NCERT SOLUTION

1. Find:

(i) 0.2×6

Ans.

$$0.2 \times 6 = 1.2$$

(ii) 8×4.6

Ans.

$$8 \times 4.6 = 36.8$$

(iii) 2.71×5

Ans.

$$2.71 \times 5 = 13.55$$

(iv) 20.1×4

Ans.

$$20.1 \times 4 = 80.4$$

(v) 0.05×7

Ans.

$$0.05 \times 7 = 0.35$$

(vi) 211.02×4

Ans.

$$211.02 \times 4 = 844.08$$

(vii) 2×0.86

Ans.

$$2 \times 0.86 = 1.72$$

2. Find the area of rectangle whose length is 5.7cm and breadth is 3 cm.

Ans.

$$\text{Length of rectangle} = 5.7 \text{ cm}$$

$$\text{Breadth of rectangle} = 3 \text{ cm}$$

$$\text{Area of Rectangle} = \text{Length} \times \text{Breadth}$$

$$= 5.7 \times 3 = 17.1 \text{ cm}^2$$

3. Find:

(i) 1.3×10

Ans.

$$1.3 \times 10 = 13.0$$

(ii) 36.8×10

Ans.

$$36.8 \times 10 = 368.0$$

(iii) 153.7×10

Ans.

$$153.7 \times 10 = 1537.0$$

(iv) 168.07×10

Ans.

$$168.07 \times 10 = 1680.7$$

(v) 31.1×100

Ans.

$$31.1 \times 100 = 3110.0$$

(vi) 156.1×100

Ans.

$$156.1 \times 100 = 15610.0$$

(vii) 3.62×100

Ans.

$$3.62 \times 100 = 362.0$$

(viii) 43.07×100

Ans.

$$43.07 \times 100 = 4307.0$$

(ix) 0.5×10

Ans.

$$0.5 \times 10 = 5.0$$

(x) 0.08×10

Ans.

$$0.08 \times 10 = 0.80$$

(xi) 0.9×100

Ans.

$$0.9 \times 100 = 90.0$$

(xii) 0.03×1000

Ans.

$$0.03 \times 1000 = 30.0$$

4. A two-wheeler covers a distance of 55.3 km in one litre of petrol. How much distance will it cover in 10 litres of petrol?

Ans.

In one litre petrol, A two wheeler cover a distance = 55.3km

In 10 litres petrol, a two wheeler cover a distance = $55.3 \times 10 = 553\text{km}$

5. Find:

(i) 2.5×0.3

Ans.

$$2.5 \times 0.3 = 0.75$$

(ii) 0.1×51.7

Ans.

$$0.1 \times 51.7 = 5.17$$

(iii) 0.2×316.8

Ans.

$$0.2 \times 316.8 = 63.36$$

(iv) 1.3×3.1

Ans.

$$1.3 \times 3.1 = 4.03$$

(v) 0.5×0.05

Ans.

$$0.5 \times 0.05 = 0.025$$

(vi) 11.2×0.15

Ans.

$$11.2 \times 0.15 = 1.680$$

(vii) 1.07×0.02

Ans.

$$1.07 \times 0.02 = 0.0214$$

(viii) 10.05×1.05

Ans.

$$10.05 \times 1.05 = 10.5525$$

(ix) 101.01×0.01

Ans.

$$101.01 \times 0.01 = 1.0101$$

(x) 100.01×1.1

Ans.

$$100.01 \times 1.1 = 110.11$$

EXERCISE-2.5

NCERT SOLUTION

1. Find:

(i) $0.4 \div 2$

Ans.

$$\frac{4}{10} \times \frac{1}{2} = \frac{2}{10} = 0.2$$

(ii) $0.35 \div 5$

Ans.

$$\frac{35}{100} \times \frac{1}{5} = \frac{7}{100} = 0.07$$

(iii) $2.48 \div 4$

Ans.

$$\frac{248}{100} \times \frac{1}{4} = \frac{62}{100} = 0.62$$

(iv) $65.4 \div 6$

Ans.

$$\frac{654}{10} \times \frac{1}{6} = \frac{109}{10} = 10.9$$

(v) $651.2 \div 4$

Ans.

$$\frac{6512}{10} \times \frac{1}{4} = \frac{1628}{10} = 162.8$$

(vi) $14.49 \div 7$

Ans.

$$\frac{1449}{100} \times \frac{1}{7} = \frac{207}{100} = 2.07$$

(vii) $3.96 \div 4$

Ans.

$$\frac{396}{100} \times \frac{1}{4} = \frac{99}{10} = 0.99$$

(viii) $0.80 \div 5$

Ans.

$$\frac{80}{100} \times \frac{1}{5} = \frac{16}{100} = 0.16$$

2. Find:

(i) $4.8 \div 10$

Ans.

$$\frac{4.8}{10} = 0.48$$

(ii) $52.5 \div 10$

Ans.

$$\frac{52.5}{10} = 5.25$$

(iii) $0.7 \div 10$

Ans.

$$\frac{0.7}{10} = 0.07$$

(iv) $33.1 \div 10$

Ans.

$$\frac{33.1}{10} = 3.31$$

(v) $272.23 \div 10$

Ans.

$$\frac{272.23}{10} = 27.223$$

(vi) $0.56 \div 10$

Ans.

$$\frac{0.56}{10} = 0.056$$

(vii) $3.97 \div 10$

Ans.

$$\frac{3.97}{10} = 0.397$$

3. Find:

(i) $2.7 \div 100$

Ans.

$$\frac{2.7}{100} = \frac{27}{10} \times \frac{1}{100} = \frac{27}{1000} = 0.027$$

(ii) $0.3 \div 100$

Ans.

$$\frac{0.3}{100} = \frac{0.3}{10} \times \frac{1}{100} = \frac{3}{1000} = 0.003$$

(iii) $0.78 \div 100$

Ans.

$$\frac{0.78}{100} = \frac{0.78}{100} \times \frac{1}{100} = \frac{0.78}{10000} = 0.0078$$

(iv) $432.6 \div 100$

Ans.

$$\frac{432.6}{100} = \frac{4326}{10} \times \frac{1}{100} = \frac{4326}{1000} = 4.326$$

(v) $23.6 \div 100$

Ans.

$$\frac{23.6}{100} = \frac{236}{10} \times \frac{1}{100} = \frac{236}{1000} = 0.236$$

(vi) $98.53 \div 100$

Ans.

$$\frac{98.53}{100} = \frac{9853}{100} \times \frac{1}{100} = \frac{9853}{10000} = 0.9853$$

4. Find:

(i) $7.9 \div 1000$

Ans.

$$\frac{7.9}{1000} = \frac{79}{10} \times \frac{1}{1000} = \frac{79}{10000} = 0.0079$$

(ii) $26.3 \div 1000$

Ans.

$$\frac{26.3}{1000} = \frac{263}{10} \times \frac{1}{1000} = \frac{263}{10000} = 0.0263$$

(iii) $38.53 \div 1000$

Ans.

$$\frac{38.53}{1000} = \frac{3853}{100} \times \frac{1}{1000} = \frac{3853}{100000} = 0.03853$$

(iv) $128.9 \div 1000$

Ans.

$$\frac{128.9}{1000} = \frac{1289}{10} \times \frac{1}{1000} = \frac{1289}{10000} = 0.1289$$

(v) $0.5 \div 1000$

Ans.

$$\frac{0.5}{1000} = \frac{5}{10} \times \frac{1}{1000} = \frac{5}{10000} = 0.0005$$

5. Find:

(i) $7 \div 3.5$

Ans.

$$7 \div \frac{35}{10} = 7 \times \frac{10}{35} = 2$$

(ii) $36 \div 0.2$

Ans.

$$36 \div \frac{2}{10} = 36 \times \frac{10}{2} = 18 \times 10 = 180$$

(iii) $3.25 \div 0.5$

Ans.

$$\frac{325}{100} \div \frac{5}{10} = \frac{325}{100} \times \frac{10}{5} = \frac{65}{10} = 6.5$$

(iv) $30.94 \div 0.7$

Ans.

$$\frac{3094}{100} \div \frac{7}{10} = \frac{3094}{100} \times \frac{10}{7} = \frac{442}{10} = 44.2$$

(v) $0.5 \div 0.25$

Ans.

$$\frac{5}{10} \div \frac{0.25}{100} = \frac{5}{10} \times \frac{100}{25} = \frac{10}{5} = 2$$

(vi) $7.75 \div 0.25$

Ans.

$$\frac{775}{100} \div \frac{25}{100} = \frac{775}{100} \times \frac{100}{25} = 31$$

(vii) $76.5 \div 0.15$

Ans.

$$\frac{765}{10} \div \frac{15}{100} = \frac{765}{10} \times \frac{100}{15} = 51 \times 10 = 510$$

(viii) $37.8 \div 1.4$

Ans.

$$\frac{378}{10} \div \frac{14}{10} = \frac{378}{10} \times \frac{10}{14} = 27$$

(ix) $2.73 \div 1.3$

Ans.

$$\frac{273}{100} \div \frac{13}{10} = \frac{273}{100} \times \frac{10}{13} = \frac{21}{10} = 2.1$$

6. A vehicle covers a distance of 43.2 km in 2.4 litres of petrol.
How much distance will it cover in one litre of petrol?

Ans.

In 2.4 litres of petrol distance covered by a vehicle = 43.2 km

In 1 litres of petrol distance covered by a vehicle = $\frac{43.2}{2.4}$

$$\frac{432}{10} \div \frac{24}{10} = \frac{432}{10} \times \frac{10}{24} = 18 \text{ km}$$

∴ A vehicle cover 18 km in one litre petrol.

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