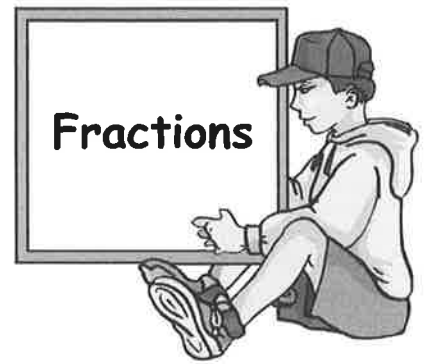


CHAPTER 8

Review 7

Fractions



1. Write down two equivalent fractions for :-

a $\frac{1}{3}$

b $\frac{1}{4}$

c $\frac{3}{5}$

d $\frac{9}{11}$.

2. Work out and **simplify** where possible :-

a $\frac{1}{5} + \frac{2}{5}$

b $\frac{4}{7} - \frac{2}{7}$

c $\frac{1}{2} + \frac{1}{4}$

d $\frac{1}{3} + \frac{1}{4}$

e $\frac{3}{5} + \frac{1}{2}$

f $\frac{1}{4} - \frac{1}{7}$

g $\frac{2}{5} + \frac{1}{11}$

h $1 - \frac{8}{15}$.

3. Find :-

a $\frac{1}{4} + \frac{1}{5} + \frac{1}{2}$

b $\frac{2}{5} + \frac{1}{4} - \frac{1}{7}$

c $\frac{8}{15} + \frac{3}{5} - \frac{5}{7}$.

4. Change each of the following into a **top heavy fraction** :-

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

b $2\frac{3}{4}$

c $5\frac{4}{9}$

d $1\frac{10}{11}$.

5. Change each of the following into a **mixed number** :-

a $\frac{15}{2}$

b $\frac{23}{4}$

c $\frac{73}{7}$

d $\frac{51}{12}$.

6. Find each of the following, leaving your answer as a **mixed number** :-

a $\frac{2}{3} + \frac{3}{4}$

b $4\frac{3}{7} + 3\frac{3}{7}$

c $7\frac{5}{9} - 3\frac{2}{9}$

d $2\frac{1}{3} + 5\frac{1}{5}$

e $4\frac{1}{2} + 3\frac{3}{4}$

f $6\frac{4}{5} - 4\frac{1}{3}$

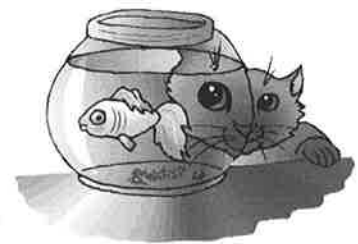
g $11\frac{5}{8} - 6\frac{1}{2}$

h $12 - 8\frac{11}{17}$.

7. There are $6\frac{1}{2}$ litres of water in one goldfish bowl and $2\frac{3}{4}$ litres in another goldfish bowl.

a How much water is there in both bowls ?

b How much more is in the first bowl than the second ?



8. The **perimeter** of this rectangle is 13 cm.
The longest side is $4\frac{1}{6}$ cm long.
Calculate the length of one of its smaller sides.



$4\frac{1}{6}$ cm

Exercise 1

Multiplying Fractions



1. Copy the following and complete :-

$$\begin{aligned} & \frac{2}{3} \times \frac{5}{6} \\ & = \frac{2 \times 5}{3 \times 6} \\ & = \frac{?}{18} = \frac{?}{?}. \end{aligned}$$

2. Multiply the following fractions and simplify (where possible) :-

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

b $\frac{7}{10} \times \frac{5}{8}$

c $\frac{3}{4} \times \frac{7}{9}$

d $\frac{6}{7} \times \frac{1}{6}$

e $\frac{3}{4} \times \frac{3}{4} \times \frac{2}{3}$

f $\frac{6}{7} \times \frac{7}{9} \times \frac{3}{8}$

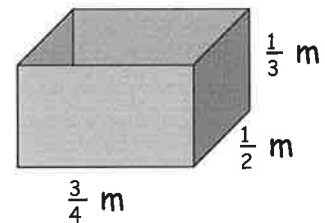
g $\frac{3}{10} \times \frac{5}{6} \times \frac{2}{3}$

h $\frac{1}{11} \times \frac{2}{5} \times \frac{7}{8}$.

3. Calculate the area of a square with side $\frac{5}{8}$ metre.

4. A cuboid has dimensions as shown.

Find the volume of this cuboid in cubic metres.



5. Do the following and simplify wherever possible :-

a $1\frac{3}{5} \times 2\frac{3}{4}$

b $2\frac{1}{3} \times 5\frac{1}{2}$

c $7\frac{1}{2} \times 2\frac{1}{3}$

d $1\frac{2}{5} \times 2\frac{1}{2}$

e $4\frac{1}{2} \times 2\frac{1}{5}$

f $2\frac{3}{5} \times 3\frac{3}{4}$

g $1\frac{1}{10} \times 1\frac{1}{6}$

h $6\frac{1}{3} \times \frac{15}{19}$.



A one metre length of pipe weighs $9\frac{3}{5}$ kg.

What would a $2\frac{1}{2}$ metre length of pipe weigh ?

Exercise 2

Division of Fractions



1. Divide the following fractions and simplify (where possible) :-

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

b $\frac{7}{9} \div \frac{7}{8}$

c $\frac{2}{3} \div \frac{4}{9}$

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

e $\frac{7}{12} \div \frac{5}{6}$

f $\frac{8}{9} \div \frac{2}{3}$

g $\frac{13}{15} \div \frac{3}{5}$

h $\frac{1}{4} \div \frac{1}{8}$

i $\frac{4}{7} \div \frac{7}{8}$

j $\frac{9}{16} \div \frac{3}{4}$

k $\frac{12}{21} \div \frac{3}{7}$

l $\frac{1}{4} \div \frac{1}{5}$.

2. a How many $\frac{1}{10}$'s are there in $\frac{3}{5}$'s ?

b How many strips of wood $\frac{1}{12}$ metre long, can I cut from a piece $\frac{5}{6}$ metre long ?

3. Find the following :- (Simplify if possible) :-

a $3\frac{1}{2} \div 1\frac{1}{6}$

b $1\frac{1}{3} \div 1\frac{1}{4}$

c $4\frac{1}{2} \div 2\frac{2}{3}$

d $1\frac{1}{6} \div 1\frac{3}{4}$

e $3\frac{1}{3} \div 2\frac{6}{7}$

f $2\frac{2}{3} \div 1\frac{3}{5}$

g $8 \div 2\frac{2}{3}$

h $11 \div \frac{3}{4}$.

4. The area of a rectangular garden is $17\frac{1}{2}$ square metres.
It is $7\frac{1}{2}$ metres long . Calculate its width.



Exercise 3

Mixed Exercise



1. Change to a mixed number :-

a $\frac{12}{5}$

b $\frac{53}{6}$.

2. Rewrite as a top-heavy fraction :-

a $7\frac{5}{6}$

b $11\frac{3}{4}$.

3. How many $\frac{1}{5}$ pizza slices can be sold from $4\frac{3}{5}$ pizzas ?



4. Copy and complete :-

a $\frac{5}{9} + \frac{2}{9}$

b $\frac{5}{7} - \frac{3}{7}$

c $4\frac{5}{6} + 2\frac{3}{4}$

d $12\frac{3}{4} - 7\frac{6}{7}$.

5. Copy and complete :-

a $\frac{1}{4} \times \frac{1}{5}$

b $3\frac{1}{5} \times 2\frac{3}{4}$

c $\frac{3}{4} \div \frac{1}{4}$

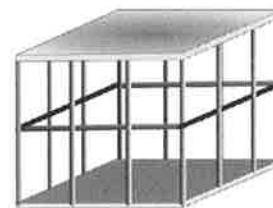
d $10\frac{1}{2} \div 2\frac{1}{3}$.

6. An empty metal cage weighs $4\frac{3}{7}$ kg.

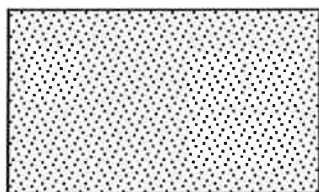
It holds 8 large watermelons.

Each watermelon weighs $1\frac{5}{6}$ kg.

Calculate the total weight of the cage and watermelons.



7.



$1\frac{1}{4}$ cm

The area of this rectangle is $3\frac{1}{3}$ cm².

Its breadth is $1\frac{1}{4}$ cm.

Calculate its length.

8. Find :- $\frac{9}{10} \times \frac{8}{9} \times \frac{7}{8} \times \frac{6}{7} \times \frac{4}{5} \times \frac{3}{4} \times \frac{2}{3}$.

Revisit – Review – Revise 8



1. Change to a mixed number :-

a $\frac{16}{3}$

b $\frac{70}{9}$

c $\frac{100}{7}$

d $\frac{21}{6}$.

2. Rewrite as a top-heavy fraction :-

a $2\frac{1}{6}$

b $4\frac{2}{3}$

c $15\frac{3}{4}$

d $10\frac{8}{9}$.

3. How many $\frac{1}{4}$ pizza slices can be sold from $5\frac{3}{4}$ pizzas ?

4. Multiply the following and simplify fully (where possible) :-

a $\frac{1}{2} \times \frac{1}{6}$

b $\frac{2}{3} \times \frac{3}{4}$

c $\frac{8}{9} \times \frac{2}{3}$

d $\frac{7}{8} \times \frac{4}{5} \times \frac{1}{2}$

e $3\frac{2}{3} \times 1\frac{1}{2}$

f $2\frac{1}{2} \times 3\frac{1}{5}$

g $3\frac{1}{3} \times 1\frac{2}{5}$

h $4 \times 3\frac{1}{3}$.

5. Divide the following and simplify fully (where possible) :-

a $\frac{2}{3} \div \frac{1}{9}$

b $\frac{8}{9} \div \frac{2}{3}$

c $\frac{7}{9} \div \frac{7}{8}$

d $\frac{2}{5} \div \frac{4}{5}$

e $2\frac{1}{4} \div 1\frac{1}{2}$

f $4\frac{1}{2} \div 1\frac{1}{5}$

g $3\frac{3}{4} \div 3\frac{1}{3}$

h $8 \div \frac{4}{5}$.

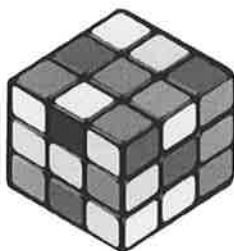
6. a Calculate the area of a rectangle measuring $4\frac{1}{2}$ cm by $1\frac{3}{4}$ cm.

b How many $\frac{1}{6}$ metre lengths of cloth can I cut from a $5\frac{1}{2}$ metre length ?

c A cow weighs $2\frac{1}{2}$ times as much as its calf, which weighs $14\frac{2}{3}$ kg.

What is the weight of the cow ?

7.



This mini-Rubik's cube has each of its sides $1\frac{1}{3}$ cm.
Calculate the **volume** of the cube.

8. Calculate the **area** of this right angled triangle

