

WHOLE AND FRACTIONS

Teacher: Ms. Sushma

A complete or full object is a whole.

A collection or group of similar objects is also called a whole.



whole



A collection of apples

Fractions are equal parts of a whole.

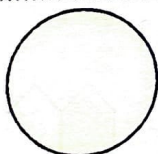


FRACTIONS OF A WHOLE

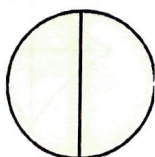
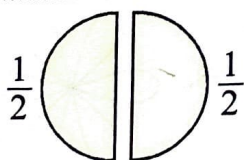
One half

When a whole is divided into two equal parts, each part is called **one half**.

One half is written as $\frac{1}{2}$.



a whole

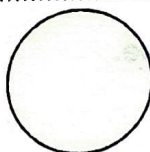


2 halves make a whole.

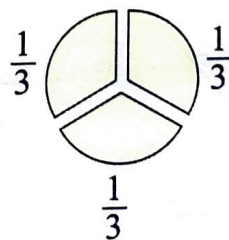
One-third

When a whole is divided into three equal parts, each part is called **one-third**.

One-third is written as $\frac{1}{3}$.



a whole



3 one-thirds make a whole.

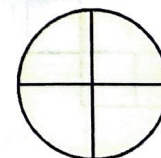
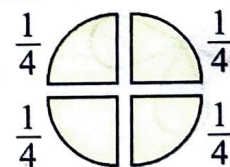
One-fourth

When a whole is divided into four equal parts, each part is called **one-fourth**.

One-fourth is written as $\frac{1}{4}$.



a whole



4 one-fourths make a whole.

Exercise 6.1



A. Colour the shapes that are divided into equal parts.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

B. Colour one half ($\frac{1}{2}$) of each shape.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

C. Colour one-third ($\frac{1}{3}$) of each shape.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

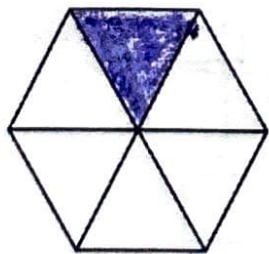
D. Colour one-fourth ($\frac{1}{4}$) of each shape.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Exercise 6.2

A. Colour the figure to show the given fraction.

1.



$$\frac{1}{6}$$

2.



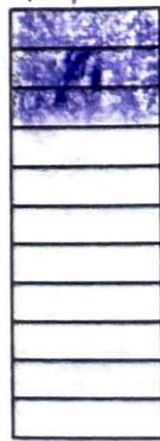
$$\frac{3}{8}$$

3.



$$\frac{6}{7}$$

4.

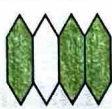
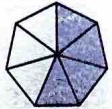
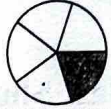

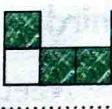


$$\frac{3}{11}$$

B. Match the columns.

- | | | |
|-------------------|-------------------------|---------------|
| 1. $\frac{4}{10}$ | 2 out of 3 equal parts | four-tenths |
| 2. $\frac{1}{4}$ | 4 out of 10 equal parts | two-thirds |
| 3. $\frac{2}{3}$ | 1 out of 3 equal parts | three-fourths |
| 4. $\frac{3}{8}$ | 1 out of 4 equal parts | one-fourth |
| 5. $\frac{3}{4}$ | 3 out of 8 equal parts | three-eighths |
| 6. $\frac{1}{3}$ | 3 out of 4 equal parts | one-third |

C. Fill in the table.

	1.	2.	3.	4.	5.
					
Fraction of shaded part	$\frac{3}{4}$	$\frac{4}{7}$	$\frac{1}{5}$	$\frac{5}{8}$	$\frac{4}{6}$
Numerator	3	4	1	5	4
Denominator	4	7	5	8	6

D. Write the numerator (N) and denominator (D) of each fraction.

- | | | |
|---|---|---|
| 1. $\frac{8}{13}$ N → <u>8</u>
D → <u>13</u> | 2. $\frac{7}{8}$ N → <u>7</u>
D → <u>8</u> | 3. $\frac{4}{9}$ N → <u>4</u>
D → <u>9</u> |
| 4. $\frac{1}{12}$ N → <u>1</u>
D → <u>12</u> | 5. $\frac{6}{11}$ N → <u>6</u>
D → <u>11</u> | 6. $\frac{9}{15}$ N → <u>9</u>
D → <u>15</u> |

E. Write the fractions with the given numerators and denominators.


	1.	2.	3.	4.	5.	6.	7.
Numerator	5	4	6	8	11	13	19
Denominator	7	9	11	15	17	14	21
Fraction →	$\frac{5}{7}$	$\frac{4}{9}$	$\frac{6}{11}$	$\frac{8}{15}$	$\frac{11}{17}$	$\frac{13}{14}$	$\frac{19}{21}$

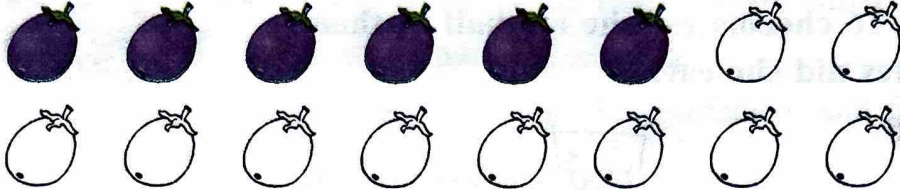
Exercise 6.3



A. What fraction is coloured in each collection?


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

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

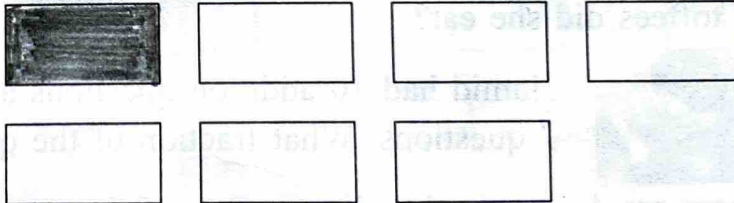
3.  $\frac{6}{8}$

B. Fill in the blanks. Colour the fraction of each collection.

1. $\frac{1}{3}$ of 9 = 3 

2. $\frac{1}{6}$ of 6 = 1 

3. $\frac{1}{4}$ of 8 = 2 

4. $\frac{1}{7}$ of 7 = 1 

5. $\frac{1}{8}$ of 16 = 2 