

## FRACTIONS

### A. Types of Fractions:

*Proper fraction:* Numerator is less than denominator

e. g.  $\frac{2}{3}$      $\frac{5}{9}$      $\frac{112}{125}$

*Improper fraction:* Numerator larger than the denominator

e.g.  $\frac{17}{7}$      $\frac{35}{19}$      $\frac{512}{425}$

*Mixed fraction:* Consists of a whole number and a fraction

e. g.  $2\frac{4}{5}$      $9\frac{1}{6}$      $56\frac{7}{11}$

### EXERCISE A:

Identify which of the following are proper, improper or mixed fractions.

Fraction	Type of fraction	Fraction	Type of fraction
$\frac{1}{5}$		$\frac{9}{5}$	
$3\frac{1}{3}$		$\frac{15}{16}$	
$\frac{29}{10}$		$5\frac{3}{8}$	
$7\frac{5}{6}$		$\frac{35}{100}$	

## B. Equivalent fractions:

Equivalent fractions have the same value when reduced.

e. g.  $\frac{2}{3} = \frac{4}{6}$        $\frac{1}{2} = \frac{5}{10} = \frac{3}{6} = \frac{50}{100}$        $\frac{4}{5} = \frac{8}{10} = \frac{12}{15}$

Look at the examples above. What number when multiplied by the first fraction would produce the second fraction?

$$\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$$

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

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

$$\frac{1 \times 50}{2 \times 50} = \frac{50}{100}$$

$$\frac{4 \times 2}{5 \times 2} = \frac{8}{10}$$

$$\frac{4 \times 3}{5 \times 3} = \frac{12}{15}$$

Therefore, each time to produce an equivalent fraction BOTH the numerator and denominator is multiplied by the same number.

### EXERCISE B:

Evaluate the missing numbers in each case.

$\frac{1}{5} = \frac{4}{\underline{\hspace{1cm}}}$	$\frac{2}{7} = \frac{\underline{\hspace{1cm}}}{21}$	$\frac{5}{8} = \frac{25}{\underline{\hspace{1cm}}}$	$\frac{7}{10} = \frac{\underline{\hspace{1cm}}}{80}$
$\frac{2}{3} = \frac{16}{\underline{\hspace{1cm}}}$	$\frac{5}{9} = \frac{\underline{\hspace{1cm}}}{72}$	$\frac{12}{13} = \frac{\underline{\hspace{1cm}}}{39}$	$\frac{8}{11} = \frac{88}{\underline{\hspace{1cm}}}$
$\frac{3}{4} = \frac{27}{\underline{\hspace{1cm}}}$	$\frac{13}{25} = \frac{65}{\underline{\hspace{1cm}}}$	$\frac{11}{20} = \frac{\underline{\hspace{1cm}}}{100}$	$\frac{5}{7} = \frac{45}{\underline{\hspace{1cm}}}$
$\frac{9}{16} = \frac{32}{\underline{\hspace{1cm}}}$	$\frac{3}{10} = \frac{36}{\underline{\hspace{1cm}}}$	$\frac{7}{15} = \frac{\underline{\hspace{1cm}}}{75}$	$\frac{23}{50} = \frac{\underline{\hspace{1cm}}}{150}$