

# Selina Solutions Concise Maths Class 7 Chapter 3 – Fraction (Including Problems)

# EXERCISE 3A

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**1.** Classify each fraction given below as decimal or vulgar fraction, proper or improper fraction and mixed fraction:

(i) 3/5 (ii) 11/10 (iii) 13/20 (iv) 18/7 (v) 3 2/9

#### Solution:

(i) 3/5 is a vulgar and proper fraction.

(ii) 11/10 is a decimal and improper fraction.

(iii) 13/20 is a decimal and proper fraction.

(iv) 18/7 is a vulgar and improper fraction.

(v) 3 2/9 is a mixed fraction.

### 2. Express the following improper fractions as mixed fractions:

(i) 18/5

(ii) 7/4

(iii) 25/6

(iv) 38/5 (v) 22/5

Solution:

(i) 18/5 can be expressed as mixed fractions as 3 3/5.

(ii) 7/4 can be expressed as mixed fractions as 1 3/4.

(iii) 25/6 can be expressed as mixed fractions as 4 1/6.

(iv) 38/5 can be expressed as mixed fractions as 7 3/5.

(v) 22/5 can be expressed as mixed fractions as 42/5.

# **3.** Express the following mixed fractions as improper fractions:

(i) 2 4/9 (ii) 7 5/13 (iii) 3 1/4 (iv) 2 5/48 (v) 12 7/11 Solution:

(i) 2 4/9 It can be written as =  $(2 \times 9 + 4)/9$ 



By further calculation = (18 + 4)/9= 22/9

(ii) 7 5/13 It can be written as =  $(7 \times 13 + 5)/13$ By further calculation = (91 + 5)/13= 96/13

(iii) 3 1/4 It can be written as =  $(3 \times 4 + 1)/4$ By further calculation = (12 + 1)/4= 13/4

(iv) 2 5/48 It can be written as =  $(2 \times 48 + 5)/48$ By further calculation = (96 + 5)/48= 101/48

(v) 12 7/11 It can be written as =  $(12 \times 11 + 7)/11$ By further calculation = (132 + 7)/11= 139/11

4. Reduce the given fractions to lowest terms:
(i) 8/18
(ii) 27/36
(iii) 18/42
(iv) 35/75
(v) 18/45
Solution:

(i) 8/18 Here the HCF of 8 and 18 is 2 So by dividing numerator and denominator by 2 =  $(8 \div 2)/(18 \div 2)$ We get = 4/9

(ii) 27/36Here the HCF of 27 and 36 is 9So by dividing numerator and denominator by 9

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 $=(27 \div 9)/(36 \div 9)$ We get = 3/4(iii) 18/42 Here the HCF of 18 and 42 is 6 So by dividing both numerator and denominator by 6  $=(18 \div 6)/(42 \div 6)$ We get = 3/7(iv) 35/75 Here the HCF of 35 and 75 is 5 So by dividing both numerator and denominator by 5  $=(35 \div 5)/(75 \div 5)$ We get = 7/15 (v) 18/45 Here the HCF of 18 and 45 is 9 So by dividing both numerator and denominator by 9  $=(18 \div 9)/(45 \div 9)$ We get  $=2/\bar{5}$ 5. State true or false:

(i) 30/40 and 12/16 are equivalent fractions.
(ii) 10/25 and 25/10 are equivalent fractions.
(iii) 35/49, 20/28, 45/63 and 100/140 are equivalent fractions.
Solution:

(i) True. Here 30/40 = 3/4 and 12/16 = 3/4

(ii) False. Here 10/25 = 2/5 and 25/10 = 5/2

(iii) True. 35/49 = 5/7, 20/28 = 5/7, 45/63 = 5/7 and 100/140 = 5/7 where all are equal.

# 6. Distinguish each of the fractions, given below, as a simple fraction or a complex fraction:

(i) 0/8 (ii) -3/-8 (iii) 5/-7 (iv) 3 3/5/ 18 (v) -6/ 2 2/5 (vi) 3 1/3/ 7 2/7 (vii) -5 2/9/ 5 (viii) -8/0 Solution:



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- (i) 0/8 is a simple fraction.
- (ii) -3/-8 is a simple fraction.
- (iii) 5/-7 is a simple fraction.
- (iv)  $3 \frac{3}{5}$  18 is a complex fraction.
- (v) -6/ 2 2/5 is a complex fraction.
- (vi) 3 1/3/ 7 2/7 is a complex fraction.
- (vii)  $-5 \frac{2}{9} \cdot 5$  is a complex fraction.
- (viii) -8/0 is neither a complex nor a simple fraction.

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