Name: .... Class: ....

Convert between improper fractions and mixed numbers

Convert the following improper fractions into mixed numbers.

$$\frac{13}{4}$$

$$\frac{47}{9}$$

$$\frac{31}{5}$$

$$\frac{17}{10}$$

$$\frac{39}{11}$$

$$\frac{49}{3}$$

Convert the following mixed numbers into improper fractions.

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

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

$$5\frac{3}{7} =$$

$$5\frac{1}{10}$$

Solution

Convert between improper fractions and mixed numbers

Convert the following improper fractions into mixed numbers.

$\dfrac{13}{4}$

$4\;\overline{\smash{\big)}\,13}$ → 3R1
$\underline{-12}$
1

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

$\dfrac{47}{9}$

$9\;\overline{\smash{\big)}\,47}$ → 5R2
$\underline{-45}$
2

$$\frac{47}{9} = 5\frac{2}{9}$$

$\dfrac{31}{5}$

$5\;\overline{\smash{\big)}\,31}$ → 6R1
$\underline{-30}$
1

$$\frac{31}{5} = 6\frac{1}{5}$$

$\dfrac{17}{10}$

$10\;\overline{\smash{\big)}\,17}$ → 1R7
$\underline{-10}$
7

$$\frac{17}{10} = 1\frac{7}{10}$$

$\dfrac{39}{11}$

$11\;\overline{\smash{\big)}\,39}$ → 3R6
$\underline{-33}$
6

$$\frac{39}{11} = 3\frac{6}{11}$$

$\dfrac{49}{3}$

$3\;\overline{\smash{\big)}\,49}$ → 16R1
$\underline{-48}$
1

$$\frac{49}{3} = 16\frac{1}{3}$$

Convert the following mixed numbers into improper fractions.

$3\dfrac{1}{4} = \dfrac{3 \times 4 + 1}{4} = \dfrac{13}{4}$

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

$7\dfrac{9}{7} = \dfrac{7 \times 7 + 9}{7} = \dfrac{49 + 9}{7} = \dfrac{58}{7}$

$$7\frac{9}{7} = \frac{58}{7}$$

$5\dfrac{3}{7} = \dfrac{5 \times 7 + 3}{7} = \dfrac{35 + 3}{7} = \dfrac{38}{7}$

$$5\frac{3}{7} = \frac{38}{7}$$

$5\dfrac{1}{10} = \dfrac{5 \times 10 + 1}{10} = \dfrac{51}{10}$

$$5\frac{1}{10} = \frac{51}{10}$$