Chapter 4 section 5
Multiply, Divided Mixed Fractions
Proper fraction: fraction whose numerator is smaller than its denominator.
Improper fraction: fraction whose numerator is larger than its denominator:
Identify the proper and improper fraction
$\frac{2}{3} \quad \frac{4}{3} \quad-\frac{23}{39} \quad-\frac{233}{103}$

Mixed Fraction: Whole number and fraction
$5 \frac{2}{3}$

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

Change Mixed Fraction to Improper Fraction
$4 \frac{7}{8}$
$4+\frac{7}{8}$
$\frac{4 \cdot 8}{8}+\frac{7}{8}$
$\frac{4 \cdot 8+7}{8}$
$\frac{39}{8}$

Quick way
Multiply
Change to improper fraction
$4 \frac{3}{4}$
$-2 \frac{3}{5}$

Change Improper Fraction to Mixed Fraction
$\frac{27}{5}$
$\frac{25}{5}+\frac{2}{5}$
$5+\frac{2}{5}$
$5 \frac{2}{5}$
Sum must be whole number and second fraction is proper.
Quick Way
Divide the numerator by the denominator. Quotient will be the whole number part.
$\frac{37}{8}$
$8 \longdiv { 3 7 }$
Change to a mixed number

$$
-\frac{43}{5} \quad \frac{35}{6}
$$

Multiply, Divide Mixed Fractions
Change all mixed fractions to improper fraction the
$-2 \frac{1}{12} \cdot 2 \frac{4}{5} \quad 4 \frac{4}{5} \div 5 \frac{3}{5} \quad-2 \frac{4}{9} \cdot 3 \frac{2}{3} \quad\left(-1 \frac{1}{6}\right) \div\left(1 \frac{1}{8}\right)$

