Math Chapter 3 Study Guide	
Greatest Common Factor	the greatest factor that two or more numbers have in common
Mixed Number	a number represented by a whole number and a fraction
Simplest form	the form in which the numerator and denominator of a fraction have no common factors other than 1
Multiplication of Fractions	$\frac{1}{6} \times \frac{9}{10}$ ← The GCF of 6 and 9 is 3. Look for a numerator and denominator with common factors. Find the GCF. $\frac{1}{\cancel{6}_{2}} \times \frac{\overset{3}{\cancel{9}}}{10} = \frac{1 \times 3}{2 \times 10} = \frac{3}{20}$ Divide 6 and 9 by the GCF, 3. Multiply.
Multiplying Whole numbers and Fractions	$\frac{7}{10} \times 8 = \frac{7}{10} \times \frac{8}{1}$ Write the whole number as a fraction. $= \frac{7}{\underset{5}{10}} \times \frac{\overset{4}{8}}{1}$ Divide 8 and 10 by the GCF, 2. $= \frac{7 \times 4}{5 \times 1}$ Multiply. $= \frac{28}{5}$, or $5\frac{3}{5}$ Write the answer as a fraction or a mixed number in simplest form.
Example 2 Find $20 \times \frac{2}{5}$. Write it in simplest form. $20 \times \frac{2}{5} = \frac{20}{1} \times \frac{2}{5}$ Write the whole number as a fraction. $= \frac{\overset{4}{20}}{1} \times \frac{2}{\underset{1}{5}}$ Divide 20 and 5 by the GCF, 5. $= \frac{4 \times 2}{1 \times 1}$ Multiply. $= \frac{8}{1}$, or 8 Write the product as a whole number.	
$\frac{4}{7} \times \frac{21}{25}$ $\frac{\cancel{4}_{1}}{7} \times \frac{\overset{3}{\cancel{21}}}{25} = \frac{4 \times 3}{1 \times 25} = \frac{12}{25}$	

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Multiplying Fractions & Mixed Numbers	**A** $\frac{5}{6} \times 2\frac{2}{5}$ $\frac{5}{6} \times 2\frac{2}{5} = \frac{5}{6} \times \frac{12}{5}$ Write the mixed number as a fraction. $\frac{\overset{1}{\cancel{5}}}{\underset{1}{\cancel{6}}} \times \frac{\overset{2}{\cancel{12}}}{\underset{1}{\cancel{5}}} = \frac{2}{1}$, or 2 Simplify. Multiply.
Multiplying Mixed Numbers	$4\frac{1}{5} \times \frac{5}{6} = \frac{21}{5} \times \frac{5}{6}$ $= \frac{\overset{7}{\cancel{21}}}{\underset{1}{\cancel{5}}} \times \frac{\overset{1}{\cancel{5}}}{\underset{2}{\cancel{6}}}$ $= \frac{7}{2}$, or $3\frac{1}{2}$