

Math Chapter 4 Study Guide										
Divisor	the number that divides the dividend									
Reciprocals	two numbers are reciprocals of each other if their product equals 1									
Associative Property	the property that states that whatever way addends are grouped or factors are grouped does not change the sum or the product									
Dividing Fractions	<p>Step 1</p> $7 \div \frac{1}{2}$ <p>Step 2</p> $\frac{7}{1} \times \frac{2}{1} = 14$ <p>(turn the second fraction over and change the division sign to multiplication.)</p>									
Reciprocals	<p>Two numbers whose product is 1 are reciprocals.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>$\frac{1}{3} \times 3 = 1$</td> <td>$\frac{4}{5} \times \frac{5}{4} = 1$</td> <td>$4 \times \frac{1}{4} = 1$</td> </tr> <tr> <td style="text-align: center;">↑ ↑</td> <td style="text-align: center;">↑ ↑</td> <td style="text-align: center;">↑ ↑</td> </tr> <tr> <td style="text-align: center;">reciprocals</td> <td style="text-align: center;">reciprocals</td> <td style="text-align: center;">reciprocals</td> </tr> </table>	$\frac{1}{3} \times 3 = 1$	$\frac{4}{5} \times \frac{5}{4} = 1$	$4 \times \frac{1}{4} = 1$	↑ ↑	↑ ↑	↑ ↑	reciprocals	reciprocals	reciprocals
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Dividing Fractions by using the reciprocal	$6 \div \frac{1}{4} = \frac{6}{1} \div \frac{1}{4}$ $= \frac{6}{1} \times \frac{4}{1} \quad \leftarrow$ $= \frac{6}{1} \times \frac{4}{1} = \frac{24}{1}, \text{ or } 24$									

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Dividing a Mixed Number

$$\begin{aligned}6\frac{1}{3} \div 5 &= \frac{19}{3} \div \frac{5}{1} \\ &= \frac{19}{3} \times \frac{1}{5} \\ &= \frac{19}{15} \text{ or } 1\frac{4}{15}\end{aligned}$$

$$\begin{aligned}\frac{7}{8} \div 1\frac{1}{6} &= \frac{7}{8} \div \frac{7}{6} \\ &= \frac{7}{8} \times \frac{6}{7} \\ &= \frac{\cancel{7}^1}{8} \times \frac{6}{\cancel{7}_1} = \frac{3}{4}\end{aligned}$$