

# Unit 4 ü Problem Solving with Fractions and Decimals

SOL 6.5: We will multiply and divide fractions and mixed numbers. We will model multiplication and division of fractions. We will solve practical problems involving addition, subtraction, multiplication and division of fractions and decimals.

	<u>Target Defined</u>	<u>Example of Target</u>
Prerequisite Target 1  <b>PT1</b>	Convert improper fractions to mixed numbers.	
Prerequisite Target 2  <b>PT2</b>	Convert mixed numbers to improper fractions.	<p>How to Make a Mixed Number <b>MAD</b></p>
Prerequisite Target 3  <b>PT3</b>	Reduce fractions to simplest form/lowest terms.	<p>greatest common factor</p> $\frac{3}{12} = \frac{1}{4} \quad 3$ $\frac{14}{49} = \frac{2}{7} \quad 7$ $\frac{52}{130} = \frac{2}{5} \quad 26$
Target 1  <b>T1</b>	Multiply Fractions	$\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3} = \frac{1}{6}$

<u>Challenge A</u>	<u>Challenge B</u>	<u>Challenge C</u>
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**Target 2**  
**T2**

Multiply Mixed Numbers

$1\frac{3}{4} \times 2\frac{1}{2} = ?$   
 $1 \times 4 + 3 = 7$   
 $2 \times 2 + 1 = 5$   
 $\frac{7}{4} \times \frac{5}{2} = \frac{35}{8} = 4\frac{3}{8}$

**Target 3**  
**T3**

Divide Fractions

Dividing Fractions  
 $\frac{3}{4} \div \frac{1}{6} =$   
 keep change flip  
 $\frac{3}{4} \times \frac{6}{1} = \frac{18}{4} = 4\frac{2}{4}$

**Target 4**  
**T4**

Divide Mixed Numbers

$3\frac{3}{5} \div 2\frac{2}{3} = \frac{18}{5} \div \frac{8}{3} = \frac{18}{5} \times \frac{3}{8} = \frac{27}{20}$  or  $1\frac{7}{20}$

**Target 5**  
**T5**

Given a model of a fraction multiplication problem, the student will identify the factors and the product.

$\frac{2}{5} \times \frac{2}{3} = \frac{4}{15}$

**Target 6**  
**T6**

Given a model of a division problem, the student will identify the divisor, dividend, and quotient.

Divide. Use the models to help you.  
 $2 \div \frac{1}{2} = \square$


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<u>Challenge</u> <u>A</u>	<u>Challenge</u> <u>B</u>	<u>Challenge</u> <u>C</u>
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<p><b>Target 7</b></p> <p><b>T7</b></p>	<p>Students will solve practical problems involving addition, subtraction, multiplication and division of fractions.</p> <p>10 Question Challenge</p>	
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<p><b>Target 8</b></p> <p><b>T8</b></p>	<p>Students will solve practical problems involving addition, subtraction, multiplication and division of Decimals.</p> <p>10 Question Challenge</p>	
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