

# “Math: Multiplying fractions” | OSEU 7: Way of Life & Development

<b>Compelling Question</b>	How can you find the fractional part of another fraction?	
<b>Standards and Practices</b>	South Dakota Common Core State Standards for Mathematics. Practice 1: Make sense of problems an persevere in solving them. Practice 2: Reason abstractly and quantitatively. Practice 4: Model with mathematics. Practice 6: Attend to precision. Practice 7: Look for and make use of structure. Practice 8: Look for and express regularity in repeated reasoning.	
<b>Staging the Question</b>	How can we find the fractional amount of each nationality for a person?	
<b>Supporting Question 1</b>	<b>Supporting Question 2</b>	<b>Supporting Question 3</b>
What is the meaning of “a fraction of another fraction”?	What are the steps to solve multiplying a fraction times a fraction?	How can we check to make sure we calculated the problem correctly?
<b>Formative Performance Task</b>	<b>Formative Performance Task</b>	<b>Formative Performance Task</b>
Steps for solving multiplying a fraction by a fraction problem: <ol style="list-style-type: none"> <li>1. If there is a mixed number then convert to an improper fraction.</li> <li>2. Multiply the numerators times each other.</li> <li>3. Multiply the denominators times each other.</li> <li>4. Simplify if the numerator and denominator are each divisible by a number other than one.</li> <li>5. Change from an improper fraction to a mixed number if the numerator is larger than the denominator.</li> </ol>	If my mother is $\frac{1}{2}$ Irish and my father is $\frac{1}{8}$ Irish. What fraction Irish am I? <ol style="list-style-type: none"> <li>1. What fraction of Irish do I get from my mother? <math>\frac{1}{2}</math> of <math>\frac{1}{2}</math> so multiply <math>\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}</math>.</li> <li>2. What fraction of Irish do I get from my father? <math>\frac{1}{2} \times \frac{1}{8} = \frac{1}{16}</math>.</li> <li>3. Now add the fractions together. <math>\frac{1}{4} + \frac{1}{16} = \frac{5}{16}</math></li> </ol>	If my mother is $\frac{3}{4}$ Native American and my father is $\frac{1}{8}$ Native American then what fraction of Native American am I? <ol style="list-style-type: none"> <li>1. <math>\frac{1}{2}</math> times <math>\frac{3}{4}</math> from my mother = <math>\frac{3}{8}</math></li> <li>2. <math>\frac{1}{2}</math> times <math>\frac{1}{8}</math> from my father = <math>\frac{1}{16}</math></li> <li>3. Add <math>\frac{3}{8} + \frac{1}{16} = \frac{6}{16} + \frac{1}{16} = \frac{7}{16}</math></li> </ol>
<b>Featured Sources</b>	<b>Featured Sources</b>	<b>Featured Sources</b>
GO MATH Grade 6 (2015) , by Houghton Mifflin Harcourt Publishing Company. Authors: Juli K. Dixon, Matthew R. Larson, Edward B. Burger, Martha E. Sandoval-Martinez, Steven J.		

<b>Leinwand (ISBN 987-0-544-43281-9).</b>		
<b>Summative Performance Task</b>	<b>Argument</b>	<b>State the steps to multiply a fraction by a fraction.</b>
	<b>Extension</b>	<b>Calculate the fractional nationality of one of your nationalities.</b>
<b>Taking Informed Action</b>	<b>Find the fractional part of nationalities of your grandparents and parents.</b>	