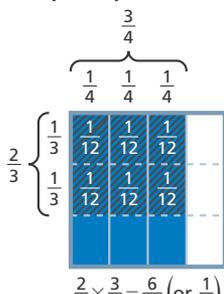
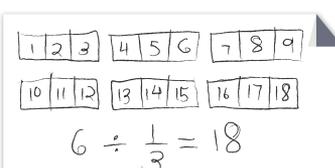


Dear Family,

Our class is starting a new mathematics unit about multiplication and division of fractions and decimals called *Races, Arrays, and Grids*. In this unit, students solve multiplication and division problems that involve fractions and decimals. They also convert measurements within the metric and U.S. standard measurement systems.

Throughout the unit, students work toward these goals:

Benchmarks/Goals	Examples
<p>Multiply fractions, mixed numbers, and whole numbers.</p>	<p>Alicia owns $\frac{3}{4}$ of a section of land. She plants pumpkins on $\frac{2}{3}$ of her land. What fraction of the entire section is planted with Alicia's pumpkins?</p>  <p>$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$ (or $\frac{1}{2}$)</p>
<p>Compare the size of the factors and the size of the product and explain their relationship.</p>	<p>On Tuesday, Margaret biked $\frac{3}{4}$ of a bike path that is 32 miles long. Without finding out exactly how many miles she rode, did she ride more or less than 32 miles? How do you know?</p>
<p>Divide a unit fraction by a whole number and a whole number by a unit fraction.</p>	<p>Yumiko has 6 cups of flour. If she needs $\frac{1}{3}$ cup of flour for 1 jumbo muffin, how many jumbo muffins can she make?</p>  <p>$6 \div \frac{1}{3} = 18$</p>



NAME _____

DATE _____

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About the Mathematics in This Unit

Benchmarks/Goals	Examples
Solve division problems with two whole numbers resulting in a fraction or a mixed number.	<p>7 people equally share 6 brownies. How much of a brownie does each person get?</p> $6 \div 7 = \frac{6}{7}$
Recognize and use place value relationships to explain patterns when multiplying or dividing by powers of 10, including placement of the decimal point.	$8 \times 0.01 = \underline{0.08}$ $8 \times 0.1 = \underline{0.8}$ $8 \times 1 = \underline{8}$ $8 \times 10 = \underline{80}$ $8 \times 100 = \underline{800}$ <p>What do you notice about the sets of problems above?</p> <p>Each time you multiply by 10 times more so that answer is 10 times bigger.</p>
Multiply and divide decimals to hundredths.	$0.8 \times 12 \approx 12$ $8 \times 12 = 96$ $1 \times 12 = 12$ <p>ANS. 9.6</p>
Solve measurement conversion problems including multi-step word problems.	<p>Deon bought 36 cans of juice that each contained 300 milliliters of juice. How many liters of juice did he buy?</p> $\begin{array}{r} 300 \\ \times 36 \\ \hline 1800 \\ 9000 \\ \hline 10,800 \text{ mL} \end{array}$ <p>1 L = 1,000 mL</p> $10,800 \div 1,000 = 10.800 \text{ L}$

In our math class, students spend time discussing problems in depth and are asked to share their reasoning and solutions. It is most important that children accurately and efficiently solve math problems in ways that make sense to them. At home, encourage your child to explain his or her math thinking to you. Please look for more information and activities about *Races*, *Arrays*, and *Grids* that will be sent home in the coming weeks.