Dividing a Fraction by a Whole Number

Name _____

Vocabulary

non unit fraction:

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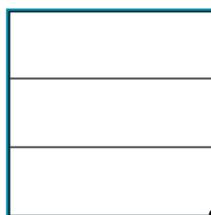
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quotient:

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In this activity, you will use a unit square and the relationship between multiplication and division to divide a fraction by a whole number.

1. Make a conjecture about $\frac{1}{3}$ divided by 4.

Write your answer. Complete the unit square to show your reasoning. Check your answer using the interactive unit square.

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2. Recall that multiplication and division are related: $20 \times 4 = 80$ can be written as $80 \div 4 = 20$. Write $4 \times \frac{1}{10} = \frac{2}{5}$ as a division problem.
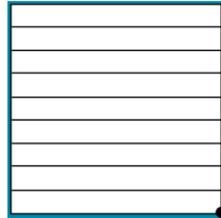
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3. A board is $\dfrac{4}{9}$ yard long. If you divide the length of the board into 3 equal parts, how long will each part be? Complete the unit square to show your reasoning.

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4. Suppose that you know the following: $\dfrac{1}{8} \div 3 = \dfrac{1}{24}$. How could you use that information to answer $\dfrac{6}{8} \div 6$?

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