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UNIT 2 LESSON 1

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| AIM: | SWBAT divide fractions |

**THINK ABOUT IT!**

Jonah has $\frac{6}{8}$ of an apple leftover. He wants to share his apple with his friends. If he shares $\frac{3}{8}$ of the whole apple with each friend, how many friends can he share his apple with? Draw a model to help you solve. Represent the problem and solution using any method.

**Test the Conjecture**

*Test the Conjecture #1)* Evaluate the expression $\frac{9}{12}÷\frac{3}{12}$

*Test the Conjecture #2)* Evaluate the expression $\frac{12}{8}÷\frac{3}{4}$

Conjecture

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| The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of two fractions with like denominators is the quotient of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  |

**PARTNER PRACTICE**

CFS for top quality work

* Problem is annotated with margin notes to provide additional meaning
* As needed, expression is written with like denominators
* Model is drawn accurately and clearly labeled
* Quotient is identified and contextualized, as appropriate

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| *Bachelor Level* |

1. Evaluate each expression using a model
	1. $\frac{8}{4}÷\frac{2}{4}$
	2. $\frac{3}{5}÷\frac{2}{10}$

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| *Master Level* |

1. The area of a rectangle is $\frac{16}{10}$ square yards. The length is $\frac{4}{5}$ square yards. What is the width of the rectangle? Use a model to prove your answer.

**Check for Understanding:**

What is the quotient of $\frac{6}{8}$ and $\frac{2}{8}$?

a) $\frac{1}{8}$

b) $\frac{3}{8}$

c) 3

d) 4

**INDEPENDENT PRACTICE**

CFS for top quality work

* Problem is annotated with margin notes to provide additional meaning
* As needed, expression is written with like denominators
* Model is drawn accurately and clearly labeled
* Quotient is identified and contextualized, as appropriate

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| *Bachelor Level* |

1. Evaluate each expression using a model
	1. $\frac{16}{10}÷\frac{4}{10}$
	2. $\frac{9}{4}÷\frac{3}{8}$
2. Evaluate the expression $\frac{10}{15}÷\frac{1}{6}$

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| *Master Level* |

1. When dividing $\frac{6}{4}$ by $\frac{2}{4}$, why can you simply divide 6 by 2 and get the quotient?

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1. Ken brought $\frac{15}{4}$ gallons of water to his team’s basketball game. Each team member drank $\frac{3}{4}$ of a gallon of water throughout the game and didn’t leave any extra water. How many people are on the team? Use a **model** to prove your answer.
2. Which expression does **not** have a quotient of 2?
	1. $\frac{12}{5}÷\frac{6}{5}$
	2. $\frac{8}{6}÷\frac{2}{3}$
	3. $\frac{18}{18}÷\frac{3}{9}$
	4. $\frac{12}{3}÷\frac{4}{2}$
3. Write two **different** division expressions that could represent the model below.



Expression 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Expression 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Clayton Kershaw had $\frac{14}{4}$ gallons of chocolate milk. He had two friends over and gave each of them $\frac{3}{2}$ gallons of chocolate milk. How much milk was left after his friends left? Use a **model** to justify your answer.

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| *PhD Level* |

1. India works in a warehouse and has to stack boxes in a back storage room. The height of the ceiling is 10 feet tall. The volume of one box is $\frac{32}{5}$ cubic feet. The length of a box is $\frac{4}{5}$ foot and the width is $\frac{2}{5}$ foot. India thinks that she can stack eleven boxes safely. Is she correct? How do you know?

**Show your work.**

1. Write an equation that has a quotient of 3 and a divisor of $\frac{4}{8}$. The dividend has to have a different denominator than the divisor.

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXIT TICKET**

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| Self-assessment | I mastered the learning objective today. | I am almost there.  | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there.  | You need more practice and feedback. |

1. Draw a model and evaluate the expression $\frac{9}{10}÷\frac{3}{10}$
2. Ms. Boyd purchased $\frac{12}{10}$ cups of strawberries. She eats $\frac{1}{5}$ cup servings. How many servings did Ms. Boyd purchase? Draw a model to solve.