DMR # 3

Click this text box open DMR in a separate tab

(please keep this tab open with our Pear Deck lesson)

Agenda

1. DMR and Academic Vocabulary
2. Good Things
3. How many groups
4. Exit Ticket
5. Small Groups

How Many Groups?
Part 1

Lesson # 4

Addressing	**6.NS.A.1** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because 3/4 of 8/9 is 2/3. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?

Let’s play with blocks and diagrams to think about division with fractions.

Today's Goals

- ❏ I can find how many groups there are when the amount in each group is not a whole number.
- ❏ I can use diagrams and multiplication and division equations to represent "how many groups?" questions.

Equal- sized Groups

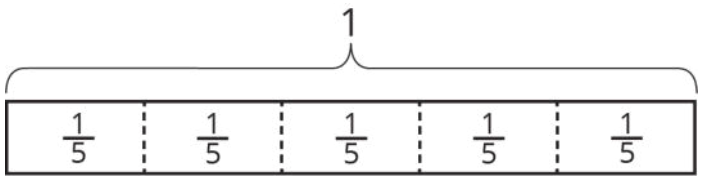
Warm Up 4.1

Equal Sized groups

Write a **multiplication equation** and a **division equation** for each statement or diagram.

1. Eight $5 bills are worth $40

1. There are 9 thirds in 3 ones



Reasoning with Pattern Blocks

Activity 4.2

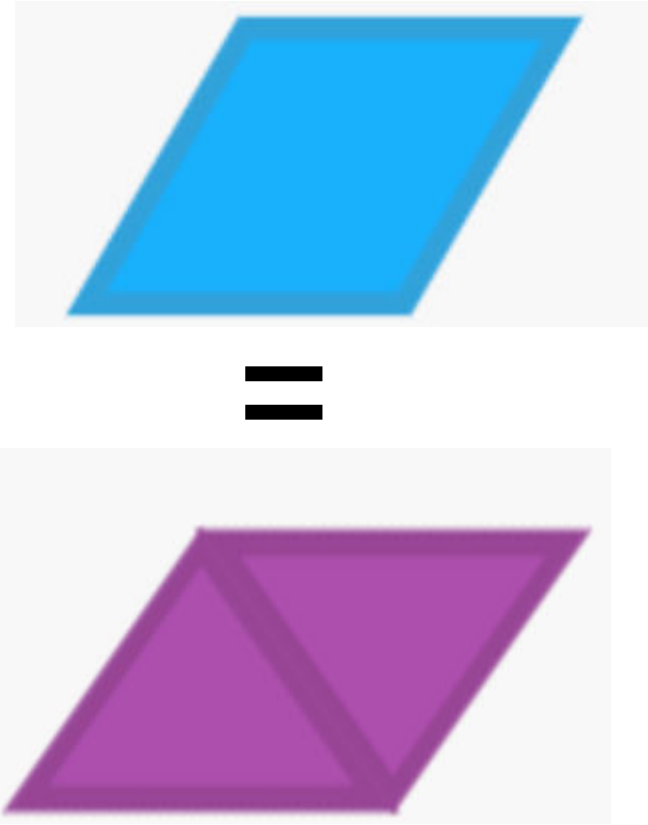
- MLR3: Clarify, Critique, Correct

In case you forgot.....

We can think of a fraction such as ½ or ⅓ in relation to 1 whole. In this task, the hexagon is 1 whole.

We worked with the same shapes earlier in the course. We saw that two triangles make a rhombus, because if we place two triangles (joined along one side with no gap) on top of a rhombus, the triangles would match the rhombus exactly. This means that a triangle is half of a rhombus.

Click the link below to access digital shapes. Keep the Pear Deck tab open too.



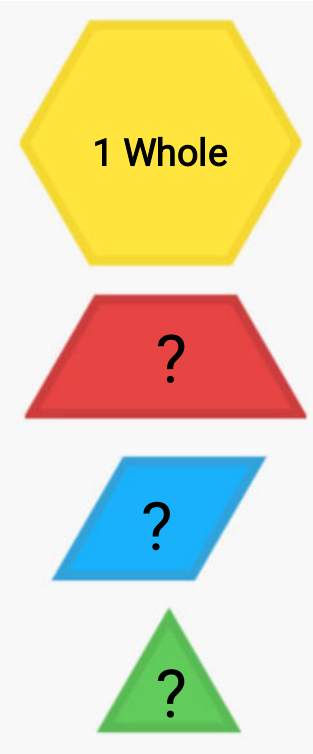
Reasoning with Pattern Blocks

If a hexagon represents 1 whole, what fraction do each of the following shapes represent? Be prepared to show or explain your reasoning.

a. 1 triangle

b. 1 rhombus

c. 1 trapezoid



Reasoning with Pattern Blocks

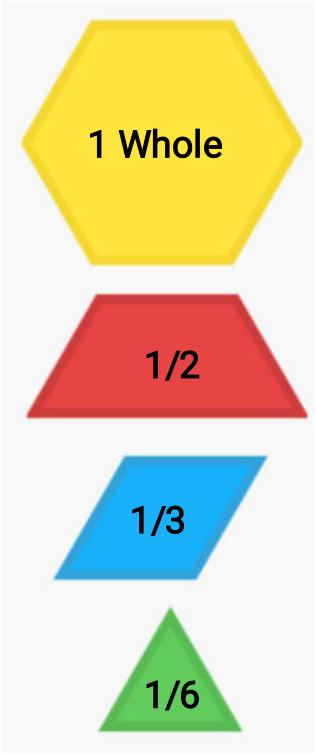
If a hexagon represents 1 whole, what fraction do each of the following shapes represent? Be prepared to show or explain your reasoning.

a. 4 triangles

b. 3 rhombuses

c. 2 hexagons

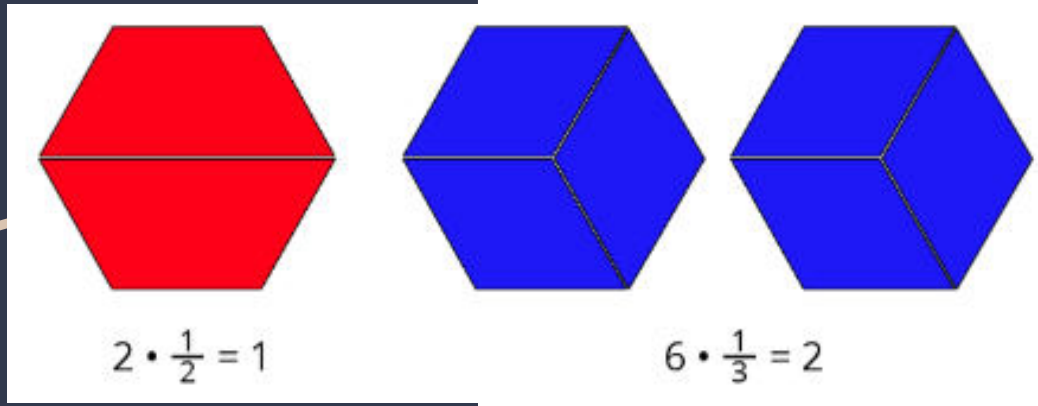
d. 1 hexagon and 1 trapezoid



Elana’s Diagrams

Here are Elena’s diagrams for 2·1/2 =1 and 6·1/3 = 2.

Do you think these diagrams represent the equations? Explain or show your reasoning.

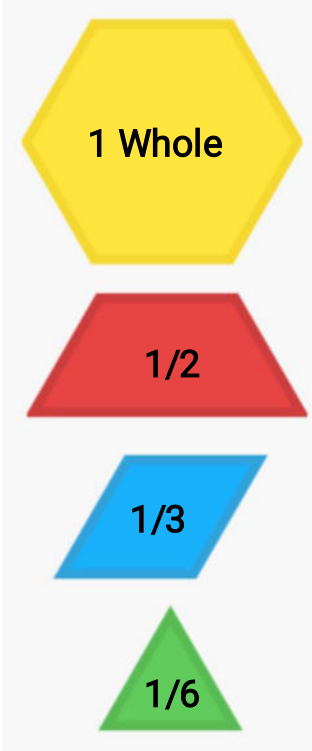


Representing Equations

Use pattern blocks to represent each multiplication equation. Recall that a hexagon represents 1 whole.

$3 \cdot \frac{1}{6} = \frac{1}{2}$

$2 \cdot 3/2 = 3$

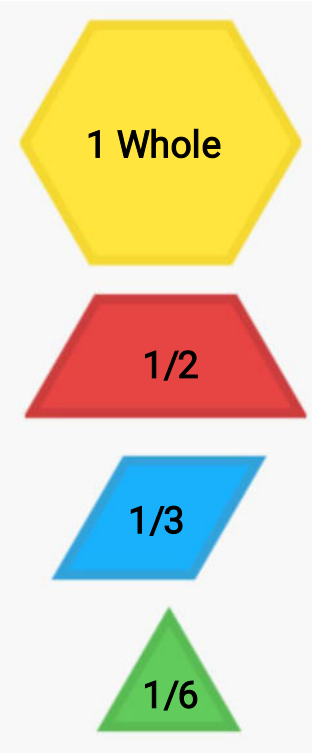


Dividing Fractions w/ Pattern Blocks

How many ½‘s are in 4?

How many ⅔’s are in 2?

How many ⅙’s are in 1 ½?



Let’s Talk About It

How many $\frac{1}{2}$s are in 4?

How many $\frac{2}{3}$s are in 3?

How many $\frac{1}{6}$s are in $1\frac{1}{2}$?

Lesson Synthesis

We can use pattern blocks, diagrams, and equations to think about questions such as, “how many ¾ are in 6?”.

- **How do we know which number represents the size of the group and which represents the total?**
- **How do pattern blocks or diagrams help us find the answers to these questions?**
- **What equations can we write to represent “ how many ¾ are in 6?”.**

Today's Goals

- ❏ I can find how many groups there are when the amount in each group is not a whole number.
- ❏ I can use diagrams and multiplication and division equations to represent "how many groups?" questions.

Students, drag the icons!

Halves, Thirds, and Sixths

Cool Down 4.3

Exit Ticket

Please click this text box to go to the exit ticket :)