

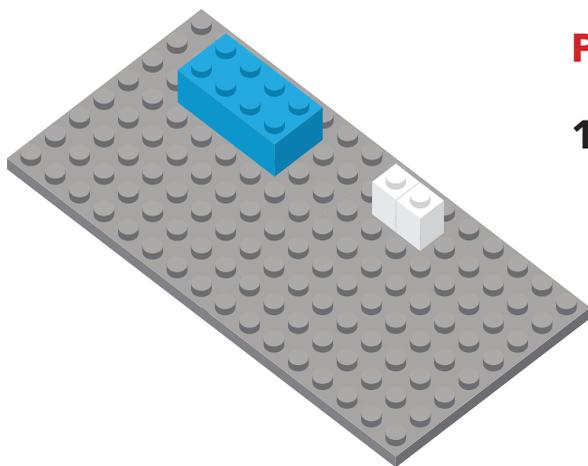


## Brick Math Lesson of the Month October 2021

# Modeling Subtraction with Bricks

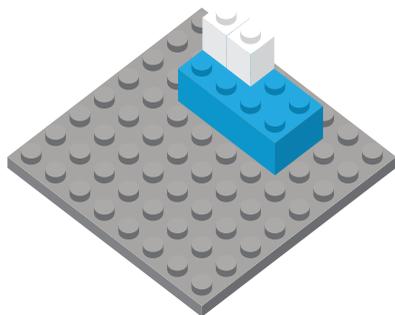
## From Subtraction Using LEGO® Bricks

### Teacher's Lesson Guide



#### Part 1: Show Them How

1. Build a model of the number 8 using one 2x4 brick. Have students make the same model. Build a model of the number 2 by placing two 1x1 bricks or one 1x2 brick to the right of the 2x4 brick, leaving space between the two models. Explain to students that these models represent the two parts of a subtraction problem: The 2x4 brick represents the *minuend* of 8 and the 1x2 brick represents the *subtrahend* of 2. Have students draw the two models and label the parts of the problem.



2. Show the subtraction of 8 studs – 2 studs by placing the 1x2 brick on top of the 2x4 brick. Ask students how many studs are not covered (6).

Explain that the uncovered studs are called the *difference*, which is how many are left after subtracting. Have students show this step on their models.

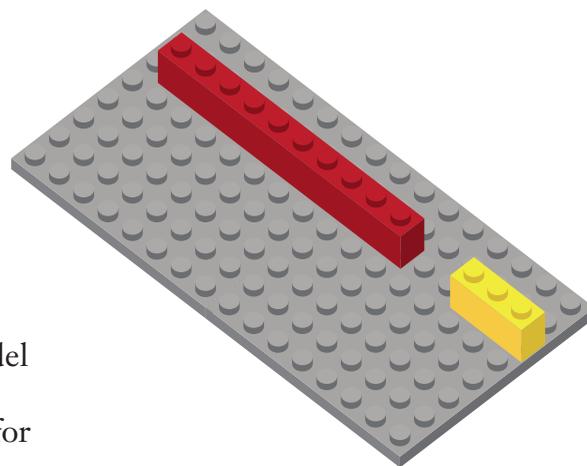
Have students draw the solution and label the numbers represented by the bricks.

Show students how to write a mathematical statement for the model: 8 studs – 2 studs = 6 studs.



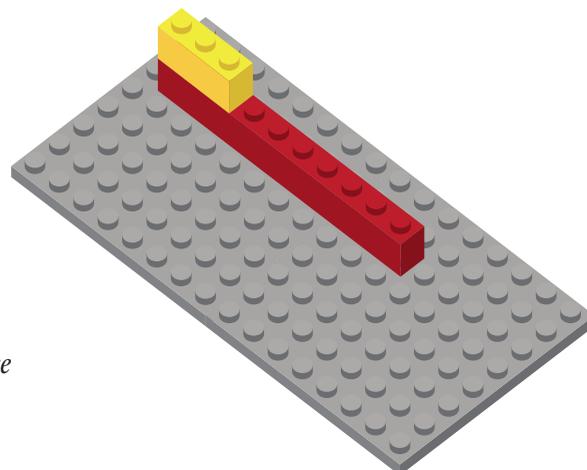
3. Build a model of the number 10 using a 1x10 brick. Have students build the same model and draw it.

Explain to students that this model represents the start of the subtraction problem. Ask students to give the name for that number (*minuend*).



4. Build a model of the number 3 to the right of the model for the number 10. Ask students to give the name for that number (*subtrahend*). Have students add a model for 3 to their models and draw it.

5. Have students model the *difference*. Ask students how they know how much the *difference* is in this problem. Have students write an explanation of their thinking.



6. Have students write a mathematical sentence for this problem.

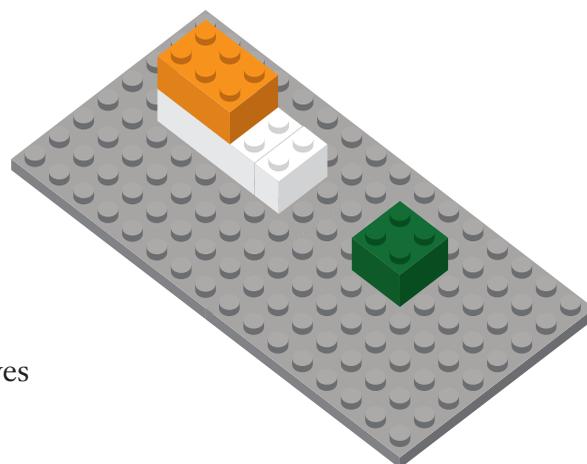
Have students draw the model that shows the *difference* and label it.

7. Have students build a different model of the number 10 using bricks other than a 1x10 brick. Have students build a model to show:  $10 \text{ studs} - 6 \text{ studs} = \square \text{ studs}$

Have students share their models with a partner. Each student should draw his/her model and explain each part of his/her problem.

Five 1x2 bricks represent the minuend of 10. One 2x3 brick represents the subtrahend of 6. Six studs on top of 10 studs leaves 4 studs showing. The 2x2 brick proves that 4 are left.

*Possible solution:*





# Brick Math Lesson of the Month

## October 2021

# Modeling Subtraction with Bricks

## From Subtraction Using LEGO® Bricks

### Student Workbook Pages

#### Part 1

1. Build a model of the number 8 using one 2x4 brick. Build a model of the number 2 by placing two 1x1 bricks or one 1x2 brick to the right of the 2x4 brick, leaving space between the two models. These two models represent the two numbers in a subtraction problem.

The first number is called the \_\_\_\_\_.

The second number is called the \_\_\_\_\_.

Draw your models.

○	○	○	○	○	○	○	○	○	○	○
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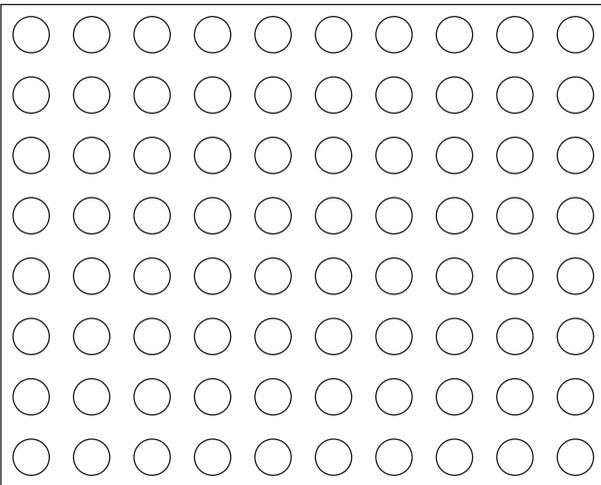


**2.** Model the subtraction of 8 studs – 2 studs by placing the 1x2 brick on top of the 2x4 brick. How many studs are not covered? \_\_\_\_\_

The uncovered studs show how many are left. This is called the \_\_\_\_\_.

Draw your model of the solution and label the numbers represented by the bricks.

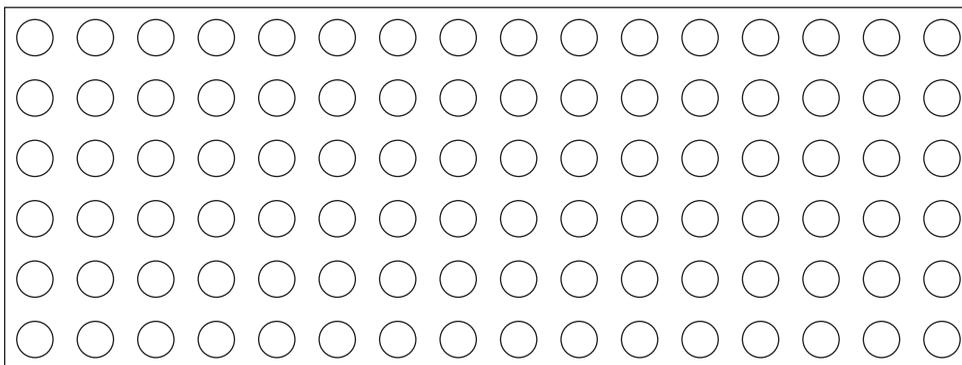
Write a mathematical statement for your model: \_\_\_\_\_



**3.** Make a model of the number 10 using a 1x10 brick. Draw your model.

This model represents the start of a subtraction problem.

Name this number: \_\_\_\_\_





- 4.** Model the number 3 to the right of your model of 10. This model represents the second part of the subtraction problem. What is the name for this number?

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Add your model of 3 to the drawing of your model of 10.

- 5.** Build a model that shows the *difference*.

How many studs of the 1x10 brick are showing after you place the 1x3 brick on top of it?

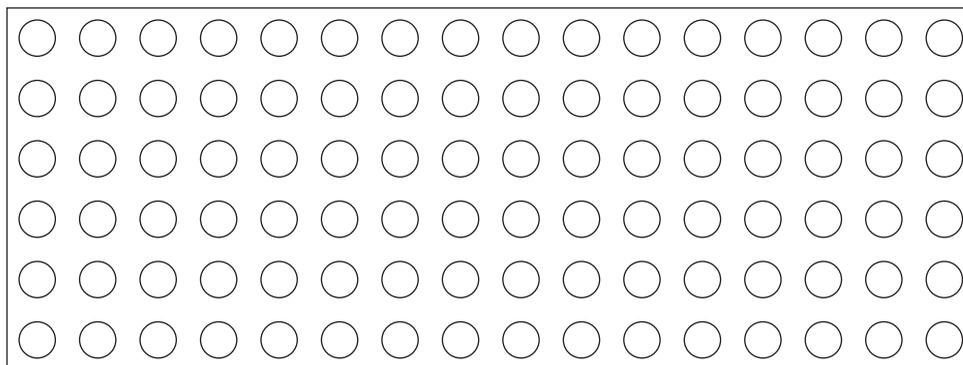
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This means the \_\_\_\_\_ is 7.

- 6.** Write a mathematical sentence for this problem.

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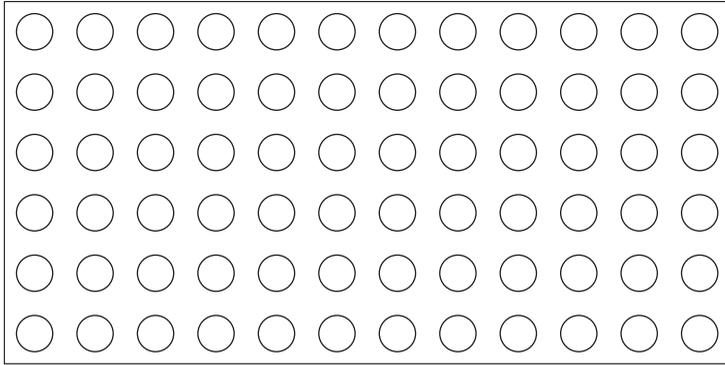
Draw a model that shows the *difference* and label it.





**7.** Build a different model of the number 10 using bricks other than a 1x10 brick. Build a model to show:  $10 \text{ studs} - 6 \text{ studs} = \square \text{ studs}$

Share your model with a partner. Draw your model and label each part of the problem. Explain your thinking.



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