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**Warm UP – Writing addition & Subtraction Expressions**

**Part A**

Create a bar diagram to show 3 plus 5 and write an expression.

Create a bar diagram to show 5 plus 3 and write an expression.

Are these two expressions the same? How do you know?

What are other ways we can say “3 plus 5”?

**Part B**

How can we show 10 minus 6? (Use any diagram you like).

Write an expression to represent this model.

Is that expressions the same as 6 minus 10? Explain. Support your answer with a model.

What are other ways we can say “10 minus 6”?

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**Lesson: Writing Addition & Subtraction Expressions**

1. Here is the expression: ***less than a number*.**

* Are we taking away from the or the unknown number?
* What expression would this represent?

2. How would we write an expression to show ***the number being subtracted from the sum of and*** ?

* Start by writing an expression for “the sum of and .”
* Now, show being subtracted from the sum.

3. Write an expression to show ***the number minus the sum of and*** .

* Why are the parentheses necessary in this example and not the others?
* Replace the variables with numbers to see if is the same as .

4. Write an expression to show ***the sum of and*** .

5. Write two expressions to show  ***increased by*** .

6. Write an expression to show ***the sum of , , and .***

7. Write an expression showing  ***less than .***

8. Write an expression to show ***the difference of and*** .

9. Write an expression to show  ***less than the sum of and*** .

1. Write an expression to show  ***decreased by the sum of and .***

11.Should Exercises 9 and 10 have different expressions? Why or why not?

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**HOMEWORK – WRITING ADDITION & SUBTRACTION EXPRESSIONS**

1. Write two expressions to show **a number increased by** . Then, draw models to prove that both expressions represent the same thing.
2. Write an expression to show **the sum of and .**
3. Write an expression to show  **decreased by** .
4. Write an expression to show  **less than** .
5. Write an expression to show **the sum of and reduced by** .
6. Write an expression to show  **less than , plus** .
7. Write an expression to show  **less than the sum of and** .