

All Things Being Equal II

All Things Being Equal II

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Summary	The equals sign signifies that amounts on each side are the same. The students will use Unifix blocks and the corresponding equations to represent equalities between additive amounts.
Goals	1. To work with different additive combinations to produce the same result.
Materials	Unifix blocks, Overheads, Grid Paper, Handouts
Keywords	Equivalences Full Class Discussion Hands-On Activity Number Lines Small Group Work

Activity Plan:

Working with Unifix Blocks and Equations

1. Producing Unifix segments of same lengths [Group Work]

You should prepare beforehand sets of Unifix blocks for pairs of students; 20 blocks (10 of each of two colors) per pair should suffice.

Ask each pair of students to produce two towers of length 5.

Distribute the handout on page 1 and ask the children to draw their towers on individual graph paper and to write an equation that describes the two towers they have built.

Note: there is no constraint on the number of components in a tower. Alternating colors would produce a tower that corresponds to $1+1+1+1+1$

2. Discussing the towers and their relations to the drawings, equations, and number line [Whole Class]

Ask each pair of children to describe the two towers they have made. Ask them to show how the equation they produced relates to their towers.

When everyone has presented a pair of towers, distribute the handout on page 2 and ask the children to produce, working in pairs, all the towers of size 5 they can. Ask them to write an expression (e.g. $3+2$) next to the corresponding tower.

Ask each pair to describe one equation they have written. Write the equations on the overhead and discuss them, asking the children to explain why they are right or wrong.

3. Homework (Page 3)

Students will draw towers of length 7 and will write equations comparing the towers.

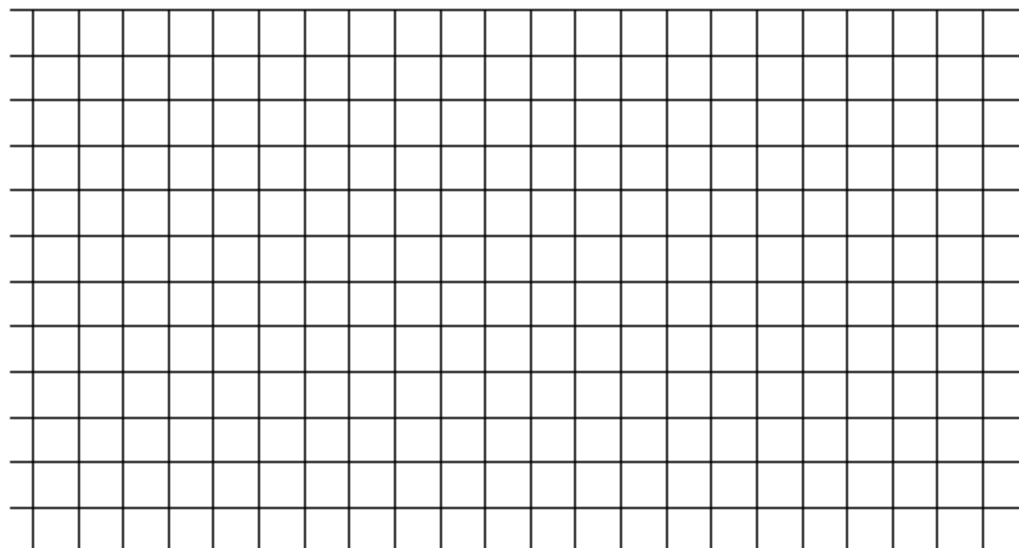
Overhead and Handout: Working with Unifix Cubes

(Page 1)

Name: _____ Date: _____

Partner's Name: _____

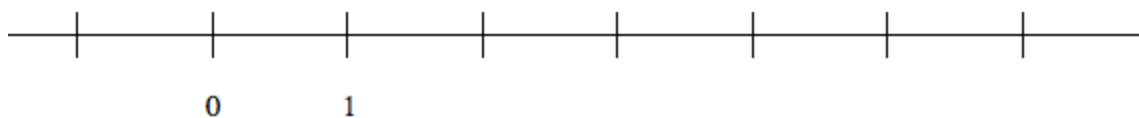
Below make two towers 5 units tall, with sections like the ones you built with the cubes.



Write an equation that shows how each of your towers makes 5.

=

Now show the towers as arrows that go from zero to five.
Show one tower above the number line. Show the other tower below the number line.

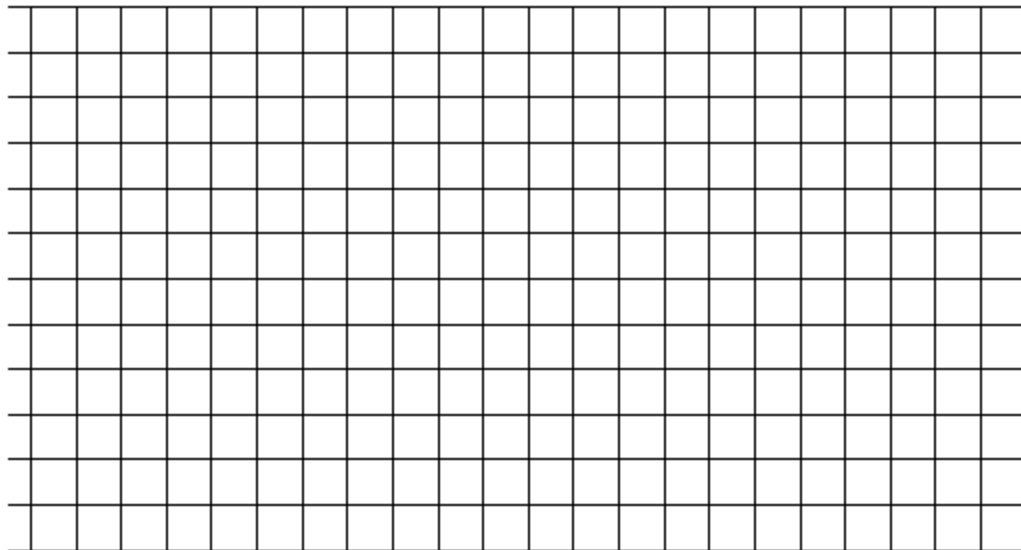


Overhead and Handout: Working with Unifix Cubes (Page 2)

Name: _____ Date: _____

Partner's Name: _____

Show how many towers of 5 units you can make using two colors for each tower:



Show how many different expressions, like $3+2$, you can make to show 5:

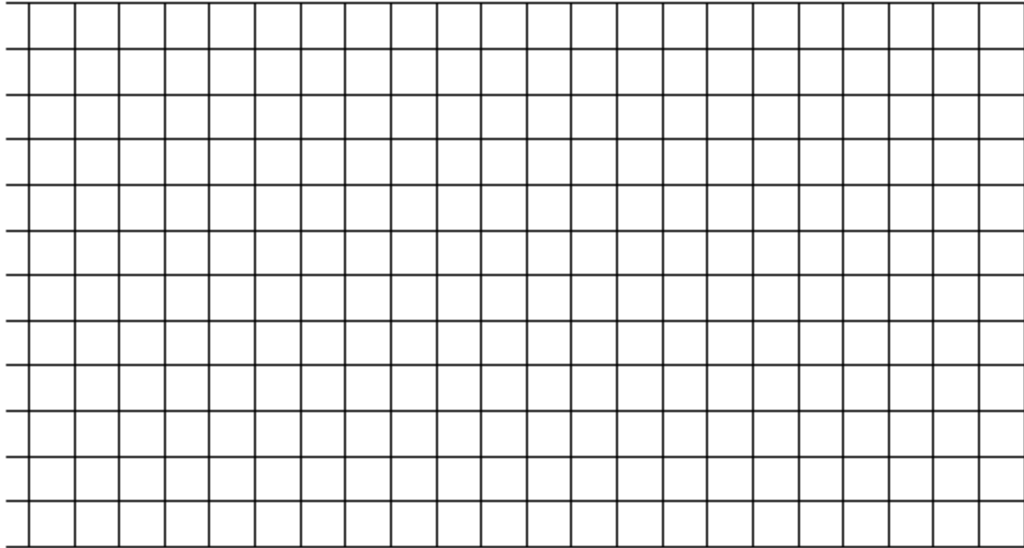
Write an equation to show that two of the towers you drew are the same length:

Overhead and Homework

(Page 3)

Name: _____ Date: _____

Show how many towers of 7 units you can you make, using red blocks and blue blocks for each tower:



Show how many expressions, like $3+4$, you can make to show 7:

Write an equation to show that two of the towers you drew are the same length: