

Multiplication properties and facts assignment

name: _____

1. a. Explain, using an appropriate, well labelled diagram and sentences, why it makes sense that $3 \times 7 = 3 \times 5 + 3 \times 2$

b. What is the name of this property?

2. Solve the multiplication fact 4×7 using:

a. a strategy appropriate for 4	b. a strategy based on breaking down 7.
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3. Describe how to solve 6×9 using the distributive property by using:

a. a strategy appropriate for 6	b. a strategy appropriate for 9
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4. Describe strategies for figuring out:

a. $2 \times$

b. $3 \times$

c. $4 \times$

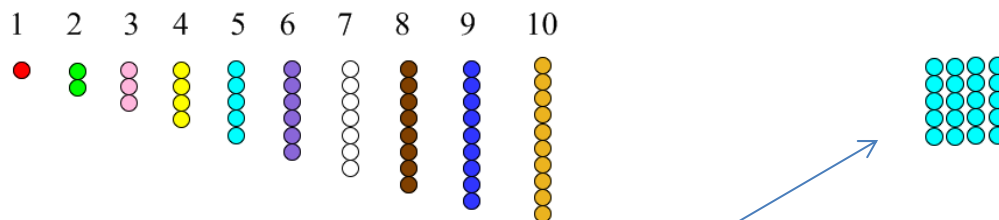
4. Continued. Describe strategies for figuring out:

d. $5 \times$

e. $6 \times$

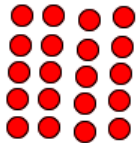
f. $9 \times$

5. Once upon a time, I was working with 3 children on a multiplication problem, and this problem had a lot of 5's in it. We were using manipulatives that look like this:

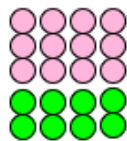


So, to show 4×5 , usually you would represent it this way (4 manipulatives, each of which show 5):
But we had run out of 5's, so I asked the children what to do. These are the 3 ways they suggested we could use the manipulatives to show 4×5 :

A.



B.



C.



Write me your best analysis of each of these 3 ways of showing 4×5 .

a. What was child A thinking when he did what he did? (Does his thinking relate to either the commutative or distributive law, or is it a strategy that uses addition or counting or...?)

b. What was child B thinking when she did what she did? (Does her thinking relate to either the commutative or distributive law, or is it a strategy that uses addition or counting or...?)

c. What was child C thinking when she did what she did? (Does her thinking relate to either the commutative or distributive law, or is it a strategy that uses addition or counting or...?)