

Multiplication (Division) Number Sense Assessment

Name: _____ Date: _____

Subitizing/Spatial Relationships	/9
Counting/Cardinality	/8
One/Two More/Less	/12
Benchmarks	/9
Part-Part- Whole	/6

Subitizing/Spatial Relation score _____ out of 9

Observations

3OA1 4OA1	<p>1. “Draw 3 groups of 4 on your paper.”</p> <ul style="list-style-type: none"> ○ Draws 3 groups of 4. (2) ○ Draws 12 items but not in 3 groups of 4. (1) ○ Does not draw 12 items. (0) 	
3OA1 4OA1	<p>2. “Tell me how many dots/items you see.” <i>(Display the following multiplication subitizing cards)</i> <i>4 groups of 5 6 groups of 2</i></p> <ul style="list-style-type: none"> ○ Says correct amount within 3 sec. (2) ○ Counts each dot/item one-by-one or takes longer than 3 sec. (1) ○ Any Incorrect. (0) 	20 ____ 12 ____
4NBT2	<p>3. <i>Show 4 groups of 8 and 4 groups of 6 subitizing cards.</i> “Which picture has the most/least amount of items.”</p> <ul style="list-style-type: none"> ○ Instantly tells which card has more/less without determining the totals. (2) ○ Determines amount on each card, then tells which has more/less. (1) ○ Does not know which has more/less. (0) 	
4NBT2	<p>4. “I’m going to flash two pictures. Tell me what is the same/different between these two pictures.” <i>(Display card with 7 groups of 4 and the other with 5 groups of 4.) **Show the first card for a few seconds, remove it from view, show the 2nd card and ask “What is the same/different from the first card?” - if cannot tell then show both pictures at the same time.</i></p> <ul style="list-style-type: none"> ○ Can describe what is different when both cards are not in front of them. (3) ○ Can describe what is similar & different with cards in front. (2) ○ Determines the amount on each card, then states they have different amounts. (1) ○ Doesn’t know what is the same or different. (0) 	

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Counting/Cardinality score ____ out of 8

Observations

30A1 40A1	<p>1. <i>Show 4 groups of 6. “How would you count these groups?”</i></p> <ul style="list-style-type: none"> ○ Correctly counts by 6’s. (2) ○ Any delay yet all correct or count each individually. (1) ○ Incorrect answer. (0) 	6-12-18-24
30A4	<p>2. <i>Have 3 groups of 5 objects covered. Say, “Under this sticky note, I have a total of 15 dots split into three groups. How many dots are in each group.”</i></p> <ul style="list-style-type: none"> ○ Give correct answer of 5. (2) ○ Has to draw or use paper/pencil to figure out. (1) ○ Incorrect answer. (0) 	5
30A1 40A1	<p>3. <i>Have a set of 12 counters/blocks. Say, “Show me 3 groups of 4 and then count by the groups.”</i></p> <ul style="list-style-type: none"> ○ Correctly groups & counts. (2) ○ Counts and groups the items correctly & gives correct answer. (1) ○ Incorrect answer. (0) 	4-8-12
30A3 40A2	<p>4. <i>Display a picture of 4 dogs and 15 bones. Say, “There were 4 dogs and 15 bones. Are there enough for each dog to get 3 bones? Explain your thinking.” (If correct, ask, “Is there enough for each dog to get 6 bones?”)</i></p> <ul style="list-style-type: none"> ○ Correctly explains both. (2) ○ Can explain easier problem but not harder. (1) ○ Incorrect answer. (0) 	

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One/Two More/Less score _____ out of 12

Observations

<p>30A9 40A5</p>	<p>1. Show multiplication equation $4 \times 5 = 20$, ask, “If $4 \times 5 = 20$, how much would 1 more group of 5 be?” If unable/incorrect, show visual for 4×5 for assistance. If correct, show $6 \times 7 = 42$ “If $6 \times 7 = 42$, how much would 1 more group of 7 be?”). Next show $3 \times 4 = 12$ and ask, “If $3 \times 4 = 12$, how much would 2 more groups of 4 be?” (If unable/incorrect, show visual for 3×4 for assistance. If correct, show $7 \times 8 = 56$ “If $7 \times 8 = 56$, how much would 2 more groups of 8 be?”).</p> <ul style="list-style-type: none"> ○ Correct answer when presented with larger number. (3) ○ Correct answer for #1 and #2. (2) ○ Correct answer for #1 or #2 or with visual assistance. (1) ○ Incorrect answer. (0) 	<p>1M: (4×5) 25 ___ (6×7) 49 ___</p> <hr/> <p>2M: (3×4) 20 ___ (7×8) 72 ___</p>
<p>30A9 40A5</p>	<p>2. Show multiplication equation $3 \times 5 = 15$, ask, “If $3 \times 5 = 15$, how much would 1 less group of 5 be?” (If unable/incorrect, show 3 groups of 5 visual for assistance. If correct, show for $6 \times 8 = 48$ “If $6 \times 8 = 48$, how much would 1 less group of 8 be?” .) Next show $5 \times 6 = 30$ and ask, “If $5 \times 6 = 30$, how much would 2 less groups of 6 be?” (If unable/incorrect, show 5 groups of 6 visual for assistance. If correct, show $9 \times 4 = 36$. “If $9 \times 4 = 36$, how much would 2 less groups of 4 be?”)</p> <ul style="list-style-type: none"> ○ Correct answer when presented with larger number. (3) ○ Correct answer for -1 & -2. (2) ○ Correct answer for -1 or -2 or with visual assistance. (1) ○ Incorrect answer. (0) 	<p>1L: (3×5) 10 ___ (6×8) 40 ___</p> <hr/> <p>2L: (5×6) 18 ___ (9×4) 28 ___</p>
<p>30A9 40A5</p>	<p>3. Show numeral 26 and ask, “If I double that number, how much would I have?” (If correct, give 79. If incorrect, give 18.)</p> <ul style="list-style-type: none"> ○ Correct answer when presented with larger number. (3) ○ Can double the amount in their head. (2) ○ Needs paper/pencil to determine answer or smaller number. (1) ○ Incorrect answer. (0) 	<p>52 ___ 158 ___</p> <hr/> <p>36 ___</p>
<p>30A9 40A5</p>	<p>4. Show numeral 70 and ask, “What is half this amount?” (If correct, repeat with 136. If incorrect, give 48.)</p> <ul style="list-style-type: none"> ○ Correct answer when presented with larger number. (3) ○ Can halve the amount in their head. (2) ○ Needs paper/pencil to determine answer or smaller number. (1) ○ Incorrect answer. (0) 	<p>35 ___ 68 ___</p> <hr/> <p>24 ___</p>

Benchmark 5 & 10 score_____ out of 9

Observations

4NBT2	<p>1. <i>Give a number line that has 0 & 10 on each end. “Show me where 8 would go on this number line. Explain your thinking.”</i></p> <ul style="list-style-type: none"> ○ Uses a halfway benchmark of 5 to determine where 8 goes. (2) ○ Gets in the general area of where 8 should be. (1) ○ Does not give the correct response. (0) 	
3OA1 4OA1	<p>2. “If I have 9 groups of 7, how much more do I need to get to 10 groups of 7?”</p> <ul style="list-style-type: none"> ○ Says “1 more group of 7.” (2) ○ Says “7.” (1) ○ Cannot do the task (0) 	
3OA1 4OA1	<p>3. “If I have 7 groups of 4, how much do I need to take away to get to have 5 groups of 4?”</p> <ul style="list-style-type: none"> ○ Says, “2 groups of 4.” (2) ○ Says, “8.” (1) ○ Cannot do the task (0) 	
3OA1 4OA1	<p>4. “I’d like for you to tell me which problem is easier for you to do: 9 groups of 6 or 6 groups of 9.” <i>(If child says it doesn’t matter because they are both the same, prompt them more by saying, “Yes, that is correct, but I’m curious which one is easier to figure out? 9 groups of 6 or 6 groups of 9”)</i></p> <ul style="list-style-type: none"> ○ Justifies using a benchmark strategy like: 9 groups of 6 because it’s like having 10 groups of 6, just one group less (or similar strategy) (3) ○ Says 6 groups of 9 because there are less numbers to count. (2) ○ Says it doesn’t matter because both are the same. (1) ○ Doesn’t know. (0) 	

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Part/Part/Whole score ____ out of 6

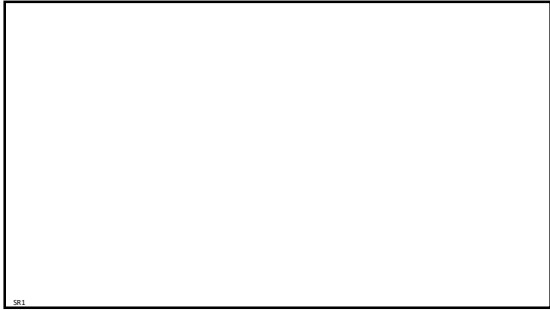
Observations

3NBT2	1. <i>Show the number 7. “What are some different ways or combinations to make this number. Using any operation, show me as many ways as you can think of.”</i> <ul style="list-style-type: none"> ○ Gives all the whole number ways to make 7. (2) ○ Does some ways but not all. (1) ○ Can’t show a way to make 7 (0) 	
3NBT2	2. <i>Show 7 groups of 4. “I have 7 groups of 4 with these blocks.” Count them out loud so the student can hear. “Now, close your eyes. I am going to hide some of them.” Hide 2 groups of 4. “We had 7 groups of 4, but there are only these cubes left. How many did I hide?”</i> <ul style="list-style-type: none"> ○ Can tell within 5 seconds you hid 8 or 2 groups of 4 (2) ○ Counts one-by-one to figure out how many you hid.(1) ○ Cannot determine the amount hid.(0) 	
3NBT2	3. <i>“This card has a total of 6 groups of 8 on it. The other two parts combine to make 6 groups of 8. How much is covered by the Post-it?”</i> <ul style="list-style-type: none"> ○ Can tell within 3 seconds the number of groups covered. (2) ○ Counts or needs paper & pencil to determine amount. (1) ○ Does not give accurate answer. (0) 	

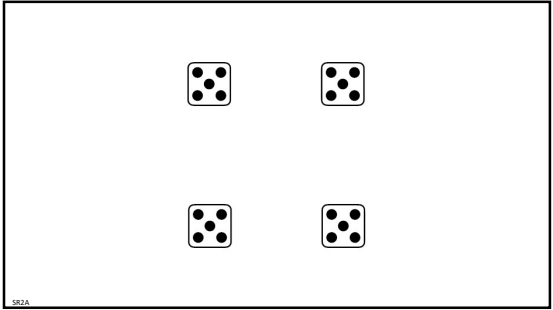
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**3rd-5th Grade
Number Sense
Multiplication(Division)
Assessment**

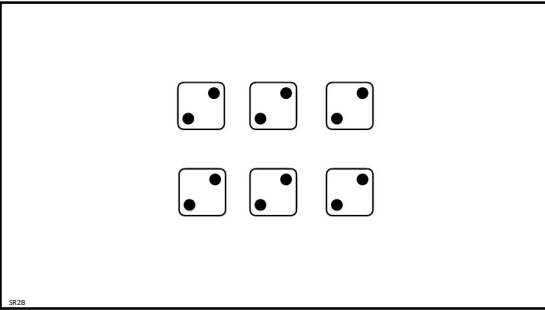
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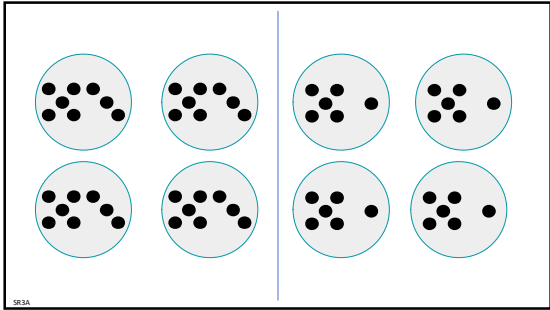
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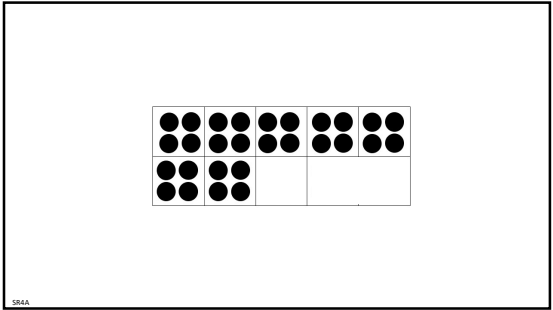
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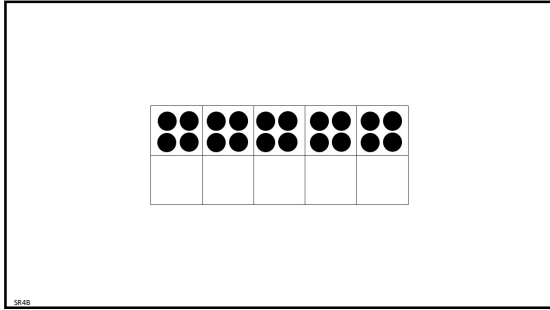
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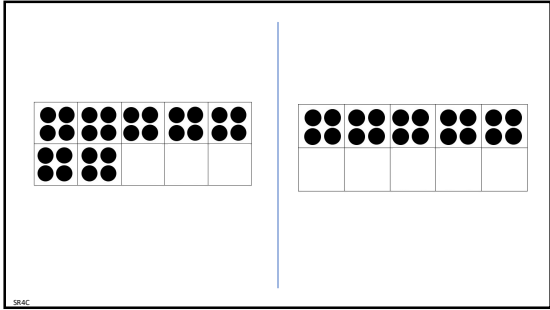
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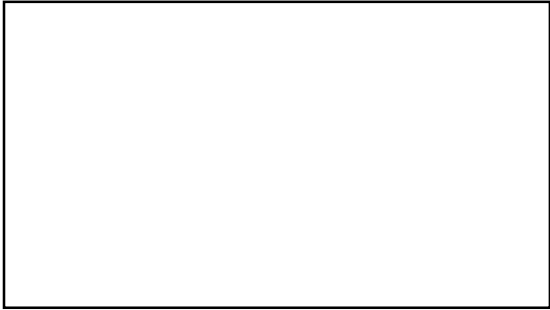
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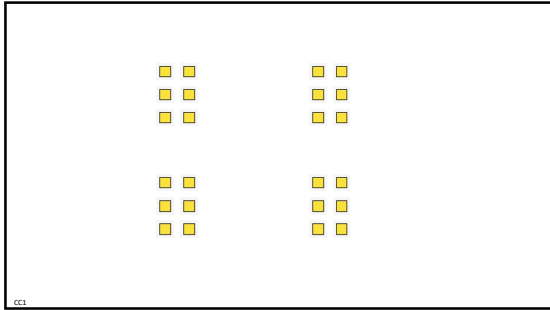
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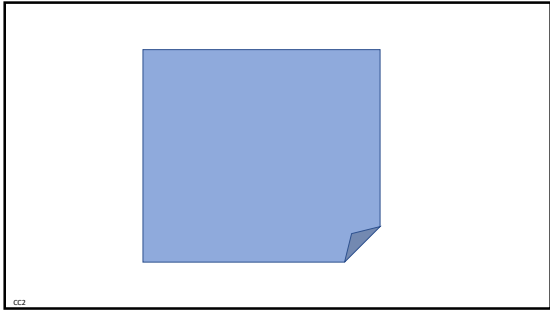
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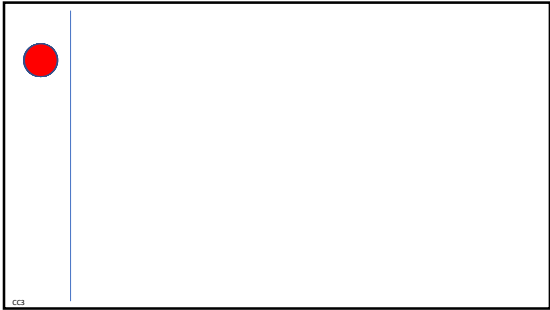
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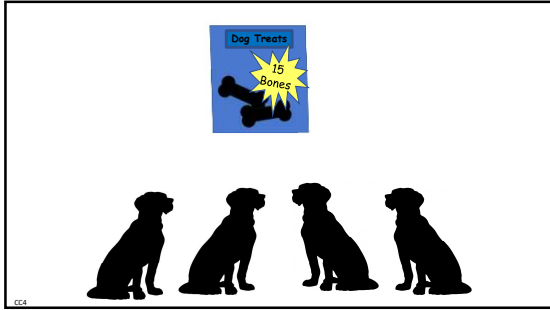
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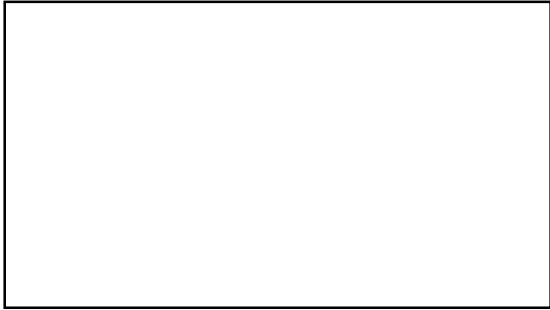
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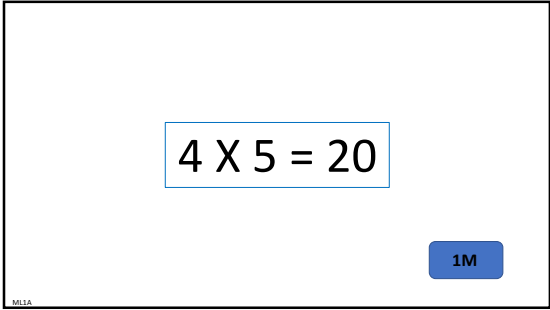
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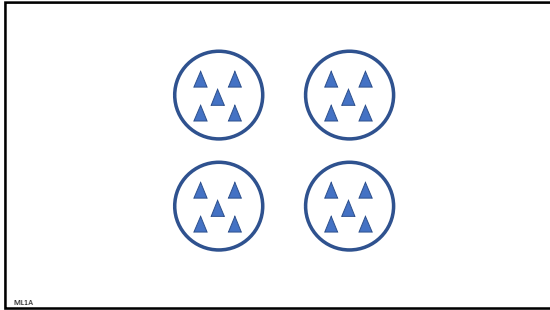
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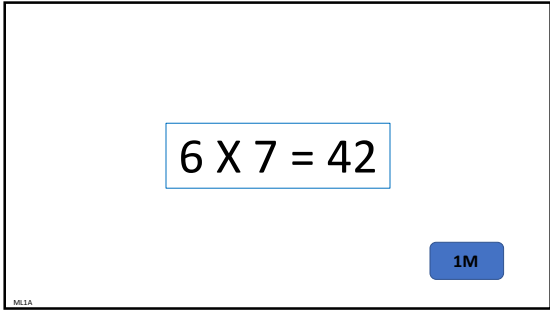
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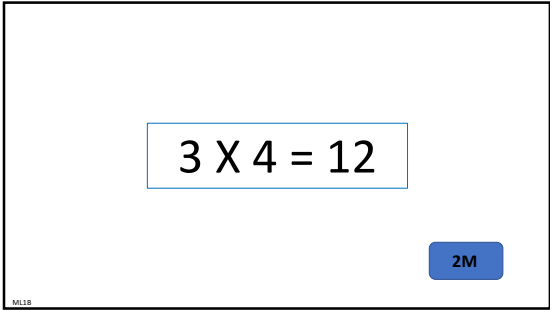
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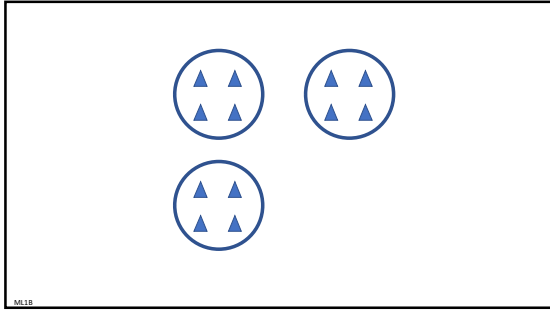
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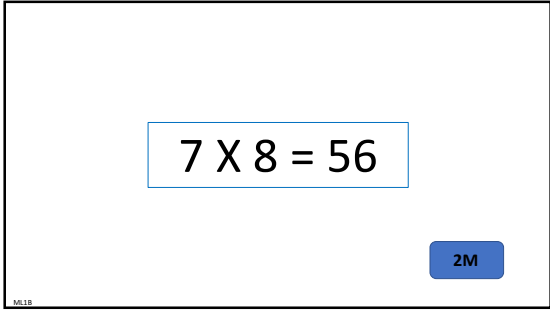
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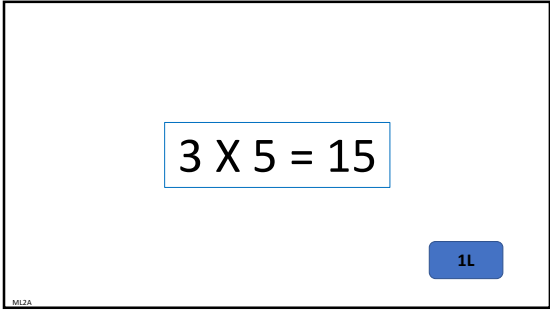
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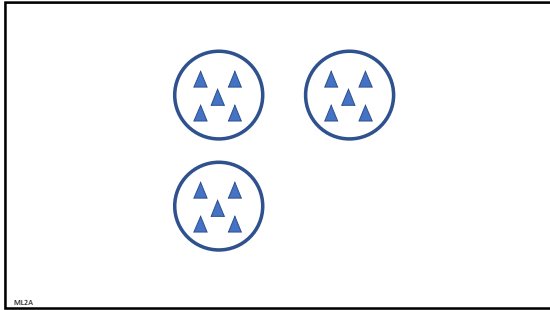
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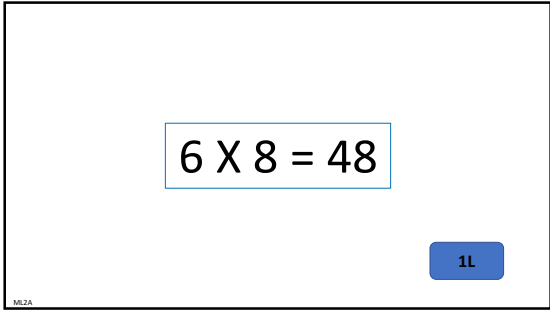
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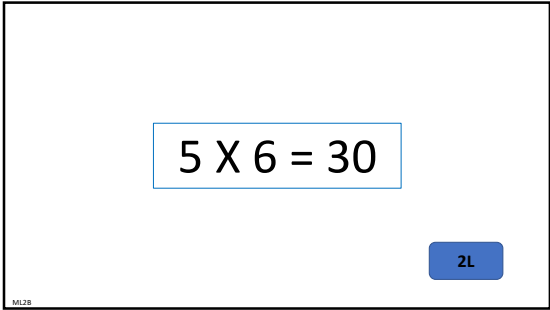
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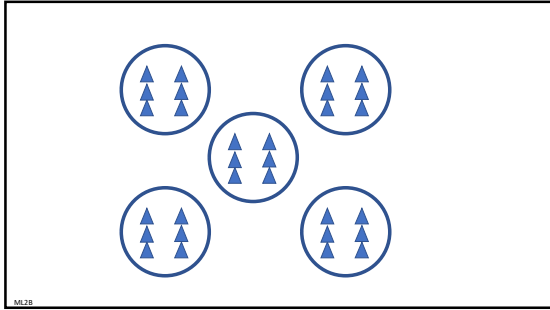
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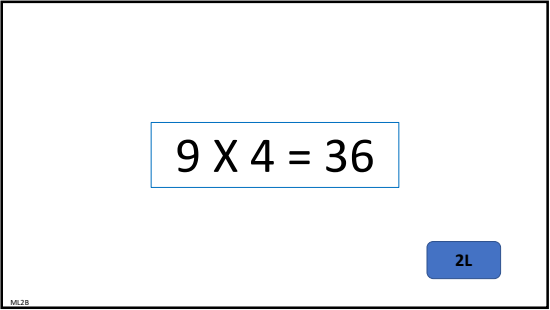
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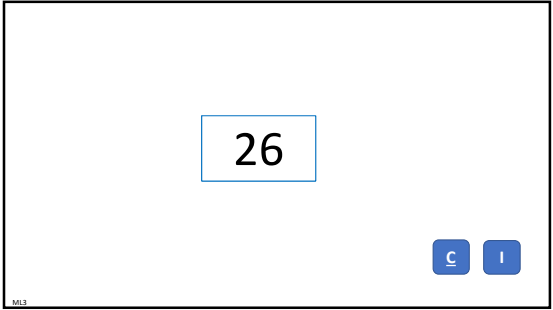
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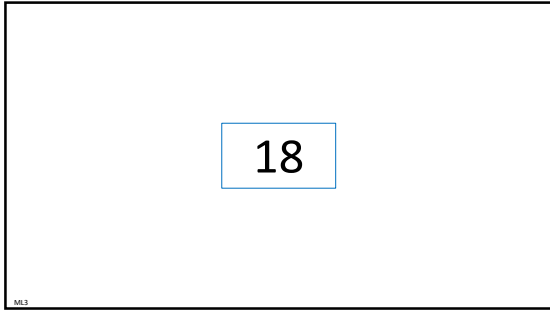
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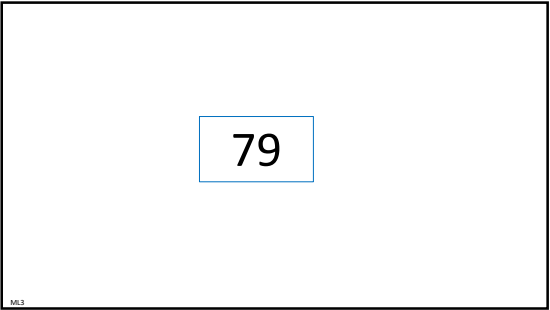
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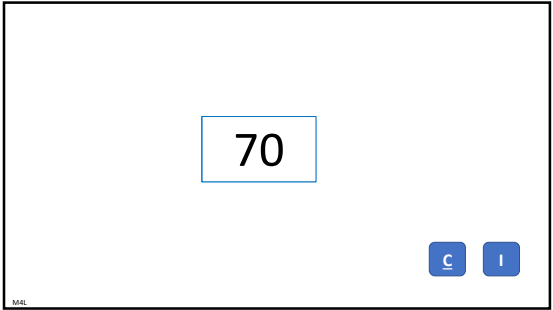
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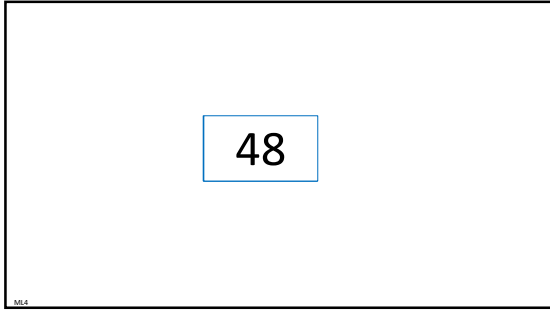
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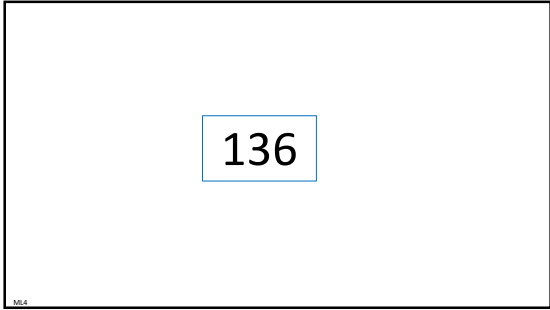
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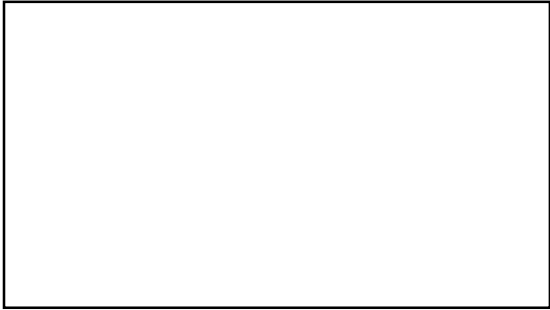
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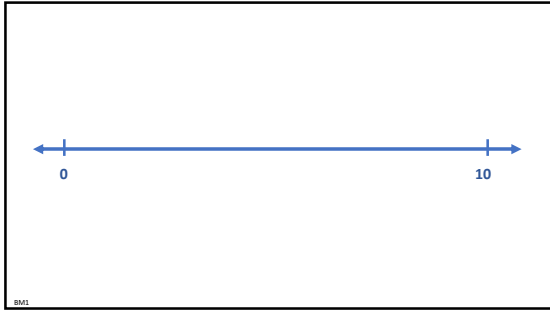
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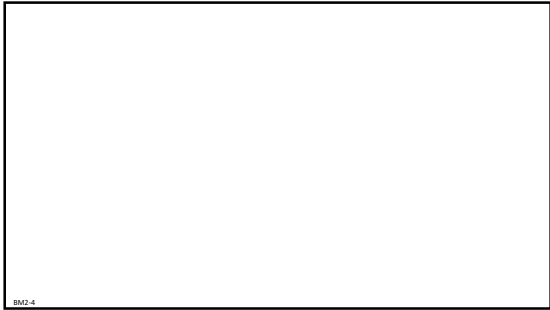
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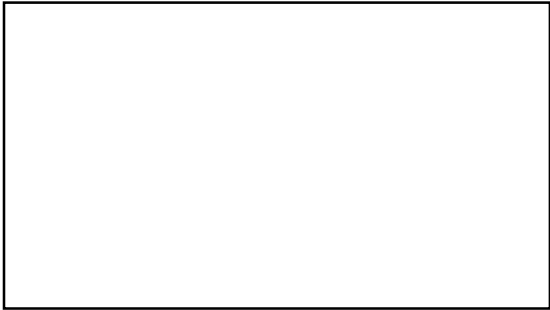
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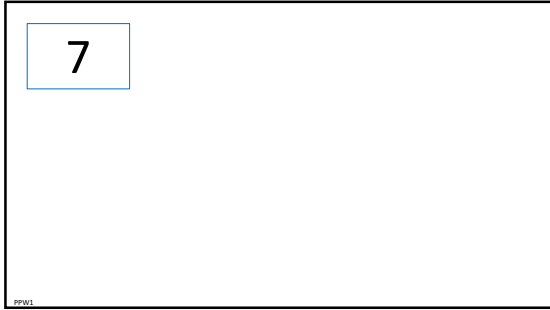
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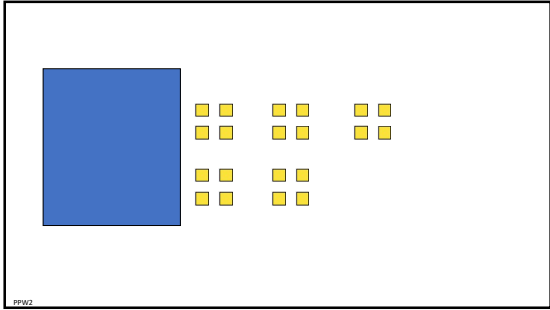
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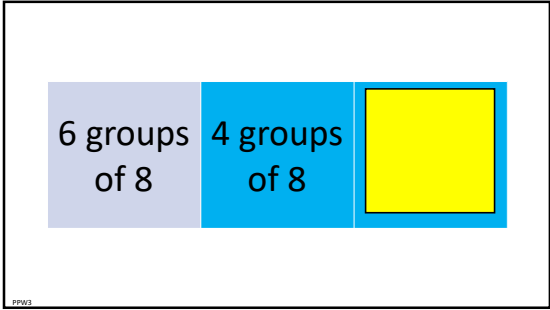
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