

The following supplemental materials are to be printed online:

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Instructional Components of Hot Math Classroom SBI Whole Class and Hot Math Tutoring SBI for One Unit: Half (H)

Component	Classroom (CR)	Tutoring (T)	CR Example	T Example
Reminder about being on task/timer		X		-Students are reminded of three rules about being “on task”: listening carefully, working hard, and following directions. A timer is set to go off at 3 random times and all students must be “on task” when the timer goes off.
Reminder about earning dollars		X		-Students earn “Hot Math Dollars” they use to buy prizes from the “Hot Math Store.” They earn dollars by being on task when the timer goes off, doing problems correctly, and “making their thermometer go up” (meeting or beating their scores on the Hot Math “Problem of the Day”).
Concrete example	X	X	-Teachers use manipulatives (e.g., plastic cubes) to show what we mean by splitting something into two equal parts.	-Tutors use manipulatives to show what we mean by splitting a group of things into two equal parts (e.g., paper clips) and splitting one thing into two equal parts (e.g., graham cracker)
Concept: What “half” means	X	X	-Teachers explain that $\frac{1}{2}$ symbolizes “one of two equal parts” with daily reviews.	-Teachers explain that $\frac{1}{2}$ symbolizes “one of two equal parts” with daily reviews.

Component	Classroom (CR)	Tutoring (T)	CR Example	T Example
Concept: Using the symbol $\frac{1}{2}$ as part of your answer	X	X	-Teachers explain that the symbol $\frac{1}{2}$ is only part of the answer when you're splitting an odd number of items in half.	-Tutors explain that the symbol $\frac{1}{2}$ is only part of the answer when you're splitting an odd number of items in half.
Procedure: Drawing circles on half chart	X	X	-Instruction occurs on correct way to draw circles in pairs on the half chart and, for odd numbers, splitting the last circle between the sides. Students are taught how to count to make sure each side of the half chart has an equal number of circles.	-Instruction occurs on correct way to draw circles in pairs on the half chart and, for odd numbers, splitting the last circle between the sides. Students are taught how to count to make sure each side of the half chart has an equal number of circles.
Procedure: Using half chart to find answer	X	X	-Students are taught to write the total below each side of the half chart, cross out one side, and use the remaining number and its word label as their answer.	-Students are taught to write the total below each side of the half chart, cross out one side, and use the remaining number and its word label as their answer.
Tool: Problem solving visual		X		-Students are taught to proceed through steps before solving a problem (Pick a problem type; Pick a picture; Find the question) and after they solve a problem (Make sure you've answered the question; Check your work to make sure it makes sense, lines up, and uses correct labels, signs and math).
Tool: Picture template		X		-Students are taught to pick a picture showing format of a finished Half problem.

Component	Classroom (CR)	Tutoring (T)	CR Example	T Example
<p>Aid: Half Poster</p> <p>Draw half chart and write number you are splitting in half at the top of half chart.</p> <p>Draw circles neatly in pairs down page.</p> <p>If you have an odd circle, put it between the two sides of half chart.</p> <p>Did I draw the right number? Count circles.</p> <p>If you split a circle in half, write $\frac{1}{2}$ on each side.</p> <p>Count to make sure sides are equal. Write total under each side.</p> <p>Cross out 1 side.</p> <p>Write answer with word label.</p>	X	X	<p>-Students are taught to follow specific steps to solve a half problem. Steps are reviewed each session.</p>	<p>-Students are taught to follow specific steps to solve a half problem. Steps are reviewed each session.</p>

Component	Classroom (CR)	Tutoring (T)	CR Example	T Example
Guided practice: Worked example(s)/group worksheet	X	X	-Teacher displays worked example(s) followed by students working problem(s) along with teacher.	-Students work practice problems on worksheet together as a group with tutor.
Partner work	X		-Teacher reminds students how to be a good partner. Students work in pairs to complete problems, followed by self-checking of problems using an answer sheet.	
Independent practice	X	X	- Students complete 2 problems, called Earning Points, that are scored (20-point scale) by the teacher according to specific guidelines. Students are encouraged to meet or beat their previous day's score.	- Students complete 1 problem, called Hot Math Problem of the Day, that is scored (20-point scale) by tutors according to specific guidelines. Students are encouraged to meet or beat their previous day's score.
Self monitoring and goal setting	X	X	-Following Earning Points, students shade thermometers with the number of points they earned. They use thermometers to set goal for next day.	-Following Hot Math Problem of the Day, students shade thermometers with the number of points they earned. They use thermometers to set goal for next day.

Component	Classroom (CR)	Tutoring (T)	CR Example	T Example
Reward	X	X	-Each day, one dyad is selected as "Partners of the Day" based on partner behavior; partners are rewarded with Partner of the Day pencil.	-Students earn Hot Math Dollars if they meet the Earning Dollars criteria (see above).
Homework	X		-Two problems are completed as homework and turned in the following day.	
