

Using True/False Sentences

You are working in a third grade classroom with 24 students. You present the following problem and ask “What goes in the box to make the sentence true?”

$$9 + 3 = \square + 8$$

Lulu says, “**Twelve goes in the box because 9 plus 3 is 12.**” And the rest of the class agrees. You want to select a sequence of examples to encourage the children to begin to think about the equal sign as meaning “the same as” rather than as meaning “the answer comes next.” The example true/false sentences in the right column below could be used to help them develop an understanding of the equal sign as meaning the same as. Cross out the examples that might not be so helpful then sequence the remaining ones in some logical order that you could present to the third grade classroom. Feel free to add additional number sentences in your sequence if you want.

your selected sequence of true/false sentences	possible true/false sentences to use
	35 = 27 + 15 2 + 7 = 11 11 = 2 + 7 34 + 57 = 58 + 33 7 x 5 = 35 237 x 87 = 87 x 237 17 = 5 + 12 2 + 7 = 9 9 = 7 + 2 7 + 0 = 7 7 = 7 + 0 7 = 7 15 + 16 = 16 + 15 273 + 89 = 87 + 271 5 x 0 = 0 5 = 5 x 0 11 + 3 = 7 + 7 13 - 8 = 3 + 2

Using Open Number Sentences

You are working in a third grade classroom with 24 students. You present the following problem and ask “What goes in the box to make the sentence true?”

$$9 + 3 = \square + 8$$

Joe says, “**Four goes in the box because 9 plus 3 is 12 and 4 plus 8 is 12.**” And the rest of the class agrees. You want to select a sequence of examples to encourage the children to begin to think about the equal sign relationally and be able to determine the truth or falseness of an equation without calculating both sides. The example open number sentences in the right column below could be used to help them develop relational understanding of the equal sign. Cross out the sentences that might not be so helpful then sequence the remaining ones in some logical order that you could present to the third grade classroom. Feel free to add additional open number sentences in your sequence if you want.

your selected sequence of open sentences	possible open sentences to use
	$12 + 17 = \square + 5$ $\square + 5 = 21 + 5$ $758 + 89 = \square + 756$ $15 + 16 = \square + 15$ $38 + 74 = \square + 73$ $12 \times 17 = 5 + \square$ $96 + \square - 12 = 96$ $12 + 17 = \square + 5$ $12 + 9 = 10 + 8 + c$ $12 + 17 = \square + 5$ $\square + 6 = 8$ $46 + 19 = 17 + \square$ $465 + 84 = 461 + 81 + \square$ $7 + 6 = \square + 5$ $43 + 28 = \square + 42$ $28 + 32 = 27 + \square$