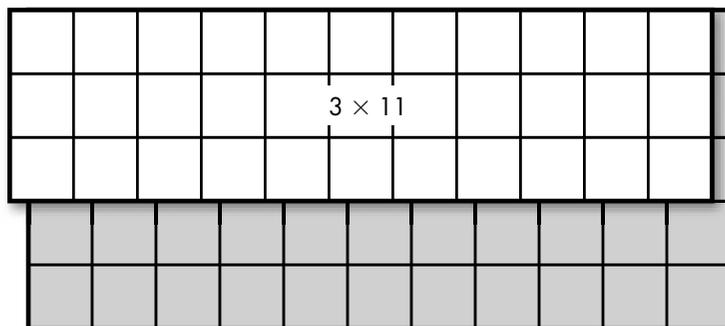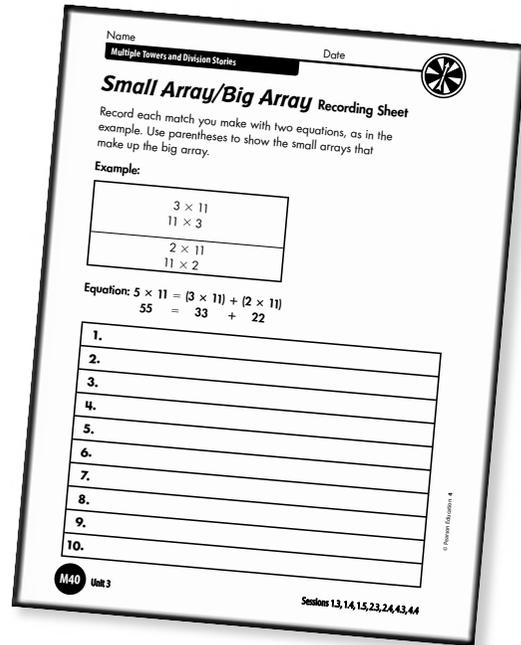# *Small Array/Big Array*

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You need

- set of Array Cards
- *Small Array/Big Array* Recording Sheet
- construction paper

Play with a partner, or form 2-player teams and play each other.

1 Deal out 10 Array Cards to each player (or team) and spread them out, factor side up.

2 On a sheet of construction paper, spread out 6 more Array Cards, factor side up. These are the center cards. Place the remaining cards in a pile to one side.

3 Players take turns matching small arrays to big arrays. "Matching" means that both arrays have one dimension, or one whole side, that is the same. For example, 3×11 and 5×11 are a match.

4 On your turn, try to match one of your Array Cards to a center card. Place your card on top of the center card so that it covers part of the array. You may play only one array on a turn.

3×11

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5 If none of your Array Cards matches a center card, you may do one of these two things:

(a) Draw a card from the pile. Play it if you can, or add it to your Array Cards if you cannot.

(b) Choose one center array that matches another center array, and play that card. This is particularly useful when there are small arrays in the center.

6 If you use a center array to cover another center array, you must either

(a) replace it with a card from the pile; or

(b) put one of your own Array Cards in the center. There must always be 6 cards in the center.

7 The goal is to make a complete match by covering a big array with a combination of 2 or 3 smaller arrays. When you play a card that makes a complete match, you collect both the big array and the smaller arrays covering it. Then you replace the center card with one from the pile. On the *Small Array/Big Array* Recording Sheet, use equations to record the complete match, using parentheses to show the smaller arrays. For example:

$$5 \times 11 = (3 \times 11) + (2 \times 11)$$
$$55 \quad = \quad 33 \quad + \quad 22$$

8 Keep in mind that there is only one card for each array. Sometimes, to complete a match, you need an array that has already been used. When this happens, you may use your turn to say what the needed card is and complete the match.

9 The game is over when there are no more cards or no more matches can be made.