

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.

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

None _____ Date _____

Small Array/Big Array Recording Sheet

Record each match you make with two equations, as in the example. Use parentheses to show the small arrays that make up the big array.

Example:

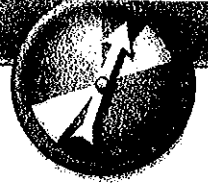
3×11
11×3
2×11
11×2

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

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

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Factors: 12, 14, 15, 17, 20, 42, 44



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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:
$$5 \times 11 = (3 \times 11) + (2 \times 11)$$
$$55 = 33 + 22$$
- 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.

Name _____

Date _____



Multiple Towers and Division Stories

Small Array/Big Array Recording Sheet

Record each match you make with two equations, as in the example. Use parentheses to show the small arrays that make up the big array.

Example:

3×11 11×3
2×11 11×2

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

1.
2.
3.
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