



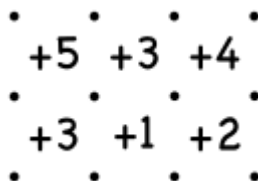
# Dots & Boxes Numbered

**Math Concepts:** Adding small numbers, Squares, Strategy

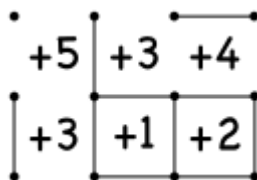
**Materials:** Paper and Pencil

**Players:** 2

**Set up:** Start with a shared piece of paper with an array of dots, say 3 by 4. Place numbers inside each square of dots to indicate that square's value. Pick a player to go first.



**Play:** On a turn, a player adds a horizontal or vertical line between two neighboring unconnected dots. If this line completes a 1 by 1 square, the player claims the number of points inside the square and has another turn.



A player is not obligated to complete a square. All lines already drawn are available for use by all players.

**Goal:** When all lines have been placed, the player with the most points wins.

## – DISCUSSION AND TIPS –

Discuss strategies that students have developed.

When is it a bad idea to fill in a long run of squares?

For very small grids, are there clear best strategies for the first or second player?

## – VARIATIONS –

**Larger grids:** Use larger grids of points for more challenging games.

**Shapes:** You can play this with a triangular grid of dots.

**Subtraction:** By using numbers with subtraction signs, you can introduce subtraction into this game.

