Vanishing Squares

HOST GUIDE - includes solutions | A4 | v1.0.0

2-6 players, with an adult host | Suggested ages 9-12 | Plan 20-30 minutes

Keep this guide with the adult host. Let the group try before offering hint 1, then hint 2. Read the explanation only when the group is ready to check its work.

Support your group

Connect one proposed set of corners lightly and compare all four side lengths. Start with the four small upright squares, then inspect the outer corners and the middle dots on each edge.

Warm-up: count the full grid

Hint 1: Look for four small squares first.

Hint 2: The tilted square uses B, D, F and H.

Answer: 6 squares: ABDE, BCEF, DEGH, EFHI, ACGI, BDFH.

There are four small upright squares, one large outer square ACGI, and one tilted square BDFH. Writing sorted corner labels makes duplicate counting easier to spot.

Round 1: erase the centre

Hint 1: The centre is not a corner of the biggest square.

Hint 2: The tilted square also survives.

Answer: 2 squares: ACGI and BDFH.

Every small square needs E as a corner, so all four disappear. Neither the outer square nor the tilted square uses E as a corner.

Round 2: erase a corner instead

Hint 1: Compare with the six-square master list.

Hint 2: Cross out the two sets that contain A.

Answer: 4 squares: BCEF, DEGH, EFHI and BDFH.

Removing A destroys ABDE and ACGI. The other three small squares and the tilted square do not use A, so they remain.

Final: two opposite corners vanish

Hint 1: Remove every set containing A or I.

Hint 2: A and I both affect the same large square.

Answer: 3 squares: BCEF, DEGH and BDFH.

From the original list, A removes ABDE and ACGI; I removes EFHI and ACGI. Count ACGI only once when removing it. The three untouched sets are BCEF, DEGH and BDFH.

How to close the session

Finish by listing every surviving square in the final position. Another player checks the list against the original six squares, crossing out only those that use a removed dot.

If a result differs, return to the stated rule and compare the written steps. An answer revealed by the host is help, not an independently solved puzzle.

Mechanism reference: Project Gutenberg 49137, THE SIX SQUARE PUZZLE.. New session instructions and examples.

Age and time are planning estimates. No child playtest or physical print trial is claimed.