



Jules and the Crooked Shadow Screen



COMPLETE TO COLLECT

Tumbled Calcite

Level 3 · 5 Glints

A PUZZLE HOUSE REPAIR

Jules finds a crooked shadow screen made from **8 identical square panels**.

A lantern behind the screen casts silhouettes across its movable panels.

Every panel touches another panel along at least one full side.

The screen has area **8 square panels** and perimeter **16 panel-edges**.

Jules may move **exactly one panel**, without turning or overlapping any panels, to make one solid rectangle. Corner-touching does not connect panels.

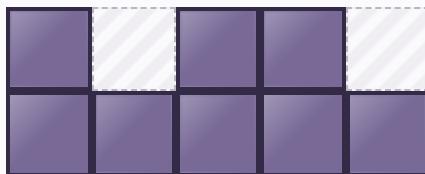


Lantern light throws spooky silhouettes across the movable screen panels.

MAKE ONE CAREFUL MOVE

- **Circle the panel Jules should move**, draw an arrow to its new position, and draw the finished rectangle on the reconstruction grid.

Original shadow screen

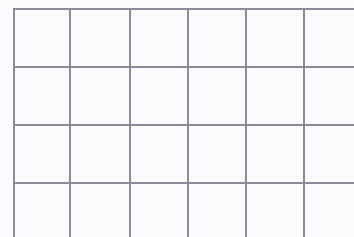


Area = 8

Perimeter = 16



Your finished rectangle



Shade exactly 8 squares.

When all 8 panels make one solid rectangle, turn the page to measure what changed.



The move: Move exactly one of the 8 panels so all 8 form one solid rectangle.

MEASURE WHAT CHANGED

- What are the area and perimeter of the finished rectangle? How much did the perimeter change?

New area
square panels

New perimeter
panel-edges

Perimeter changed by
 panel-edges

- Explain why moving one panel changed the perimeter but did not change the area. Use the panel's number of **full-side neighbors** before and after the move in your explanation.

Before moving The panel had full-side neighbor(s).

After moving The panel had full-side neighbor(s).

What that means It gained shared side(s).

