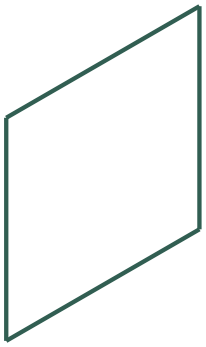
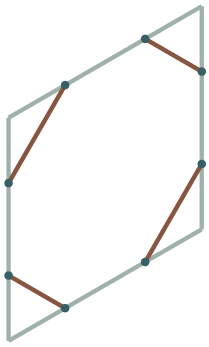
# Draw Isometric Octagon

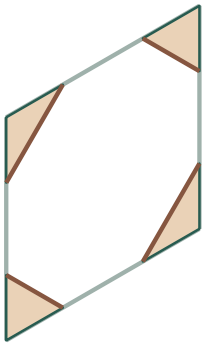
Reference | Construction reference | A4



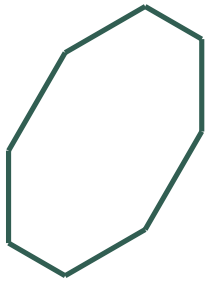
Square frame



Join equal trims



Shade outside triangles



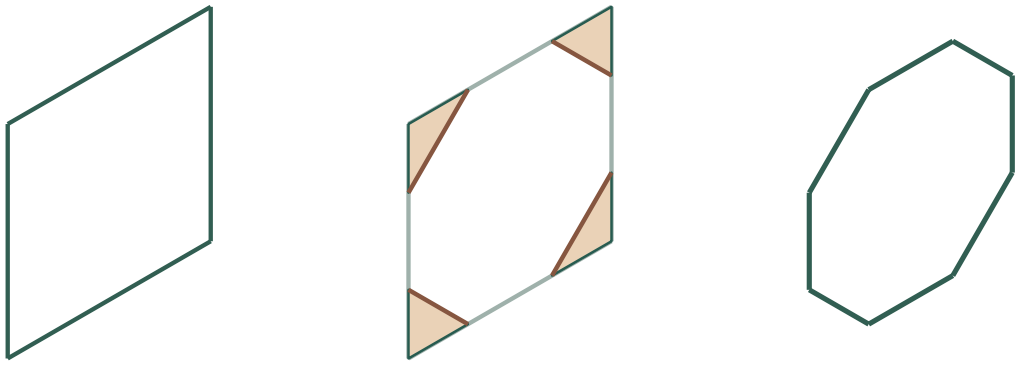
Keep eight sides

# Draw Isometric Octagon

Reference | Worked example | A4

## Original prompt

Construct an isometric octagon from an isometric square frame, showing the corner cuts and the final eight-sided outline.



Projected square | Equal corner cuts | Eight sides

## Answer

Show the projected square frame, the four same-size corner cuts marked by their endpoints, and the final eight-sided outline. Opposite diagonal cuts are parallel; adjacent cuts point along different directions.

## Reasoning

If the square side is S and the trim is t, each kept side has true length S minus 2t and each cut has true length t times the square root of 2. Choosing t = S divided by (2 plus the square root of 2) makes those true lengths equal before projection.

## Check

Count eight connected sides. Check opposite pairs are parallel and every diagonal joins the marked trim points. Equal true lengths may project to different page lengths.