

Square



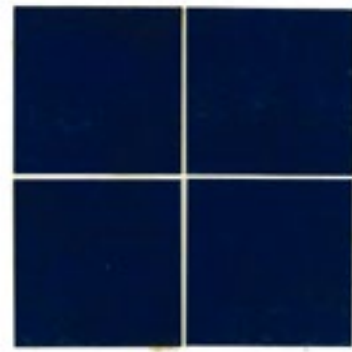
diagonal



*joining the midpoints
of two opposite sides*



diagonals

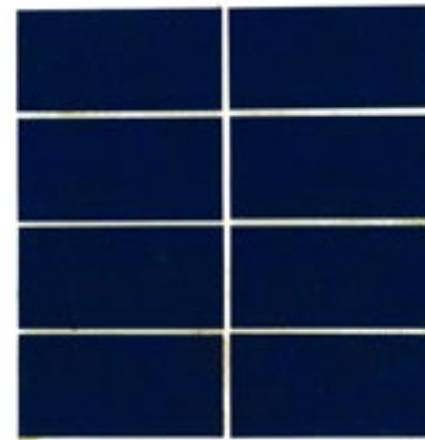


*joining the midpoints
of two pairs of opposite sides*

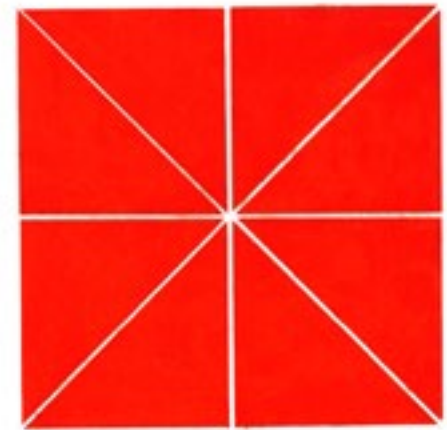


||

||



eight rectangles



eight triangles





=



+



The square is divided by the diagonal into 2 equal triangles.



=



+



The square is divided into 2 equal rectangles by joining the midpoints of two opposite sides.



sixteen squares



=

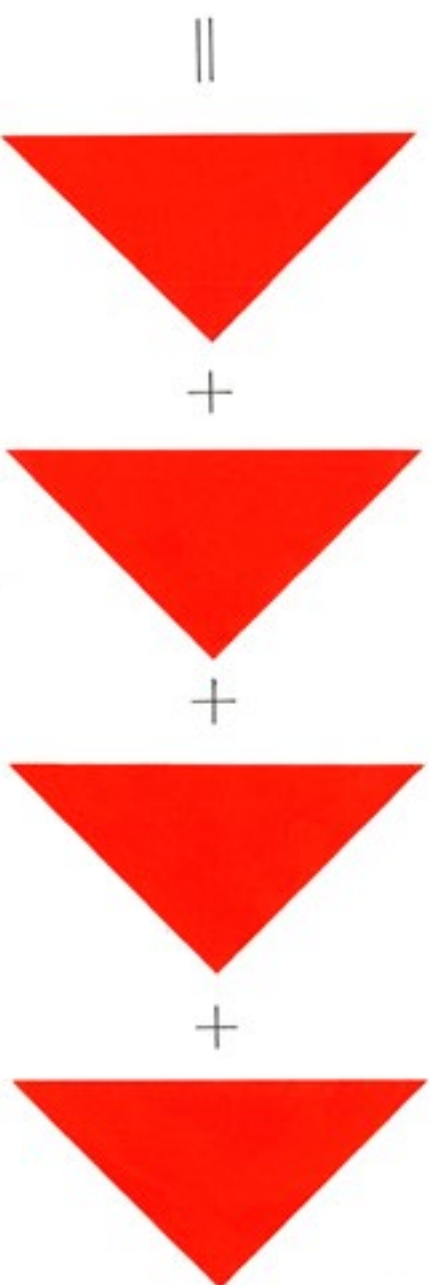
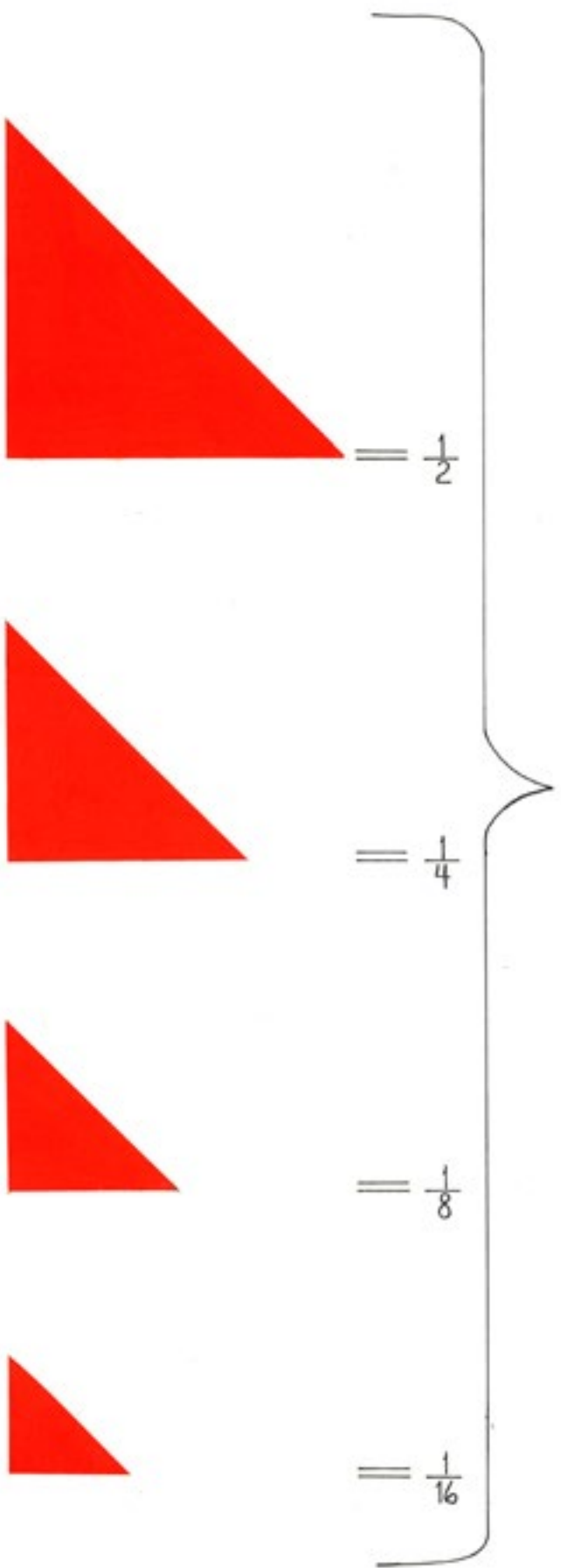


sixteen triangles



=

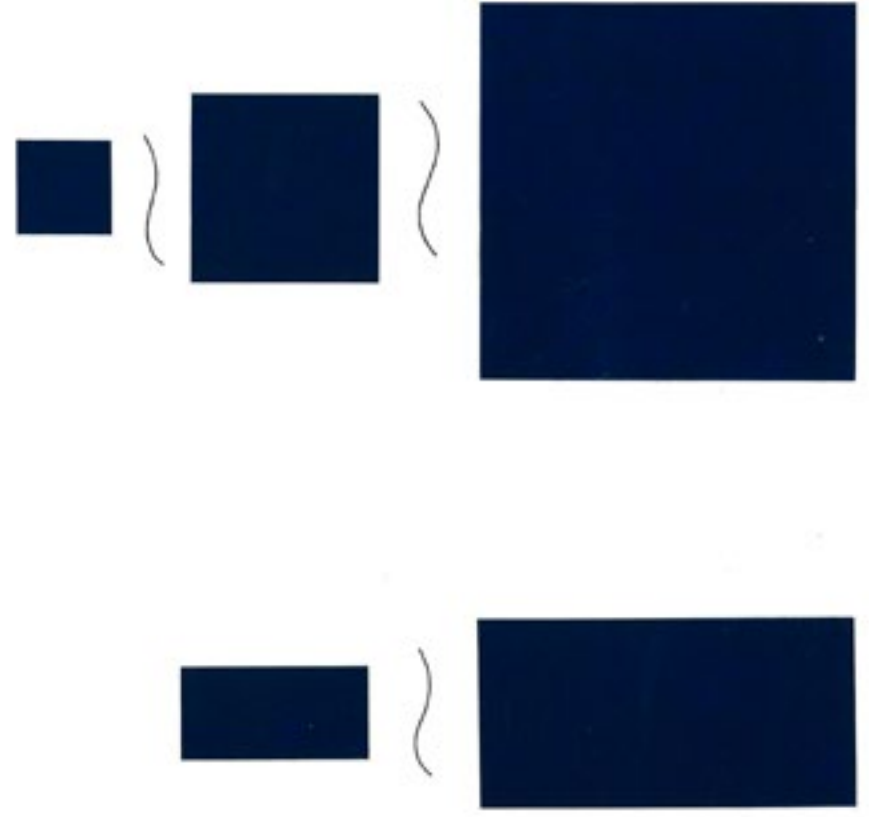
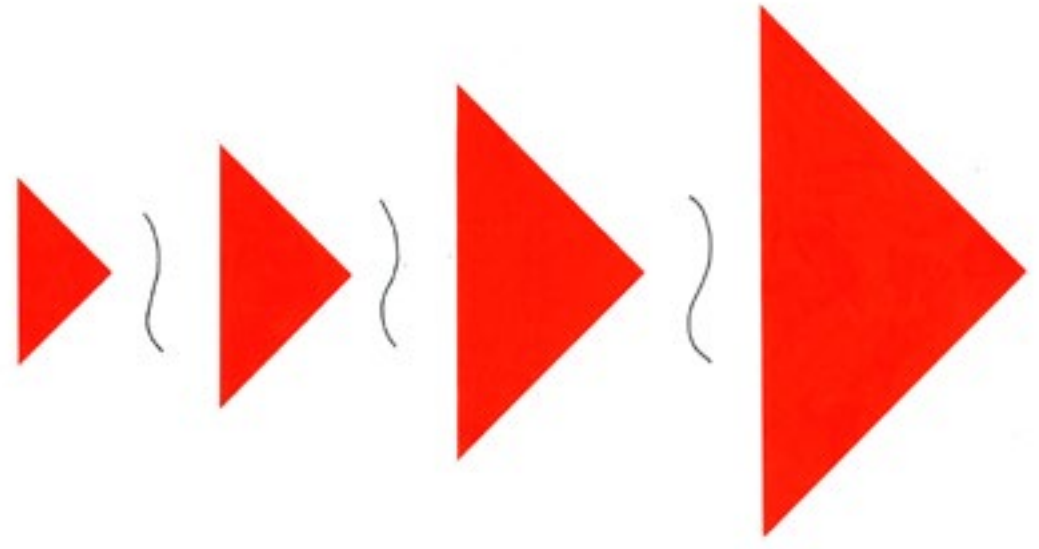
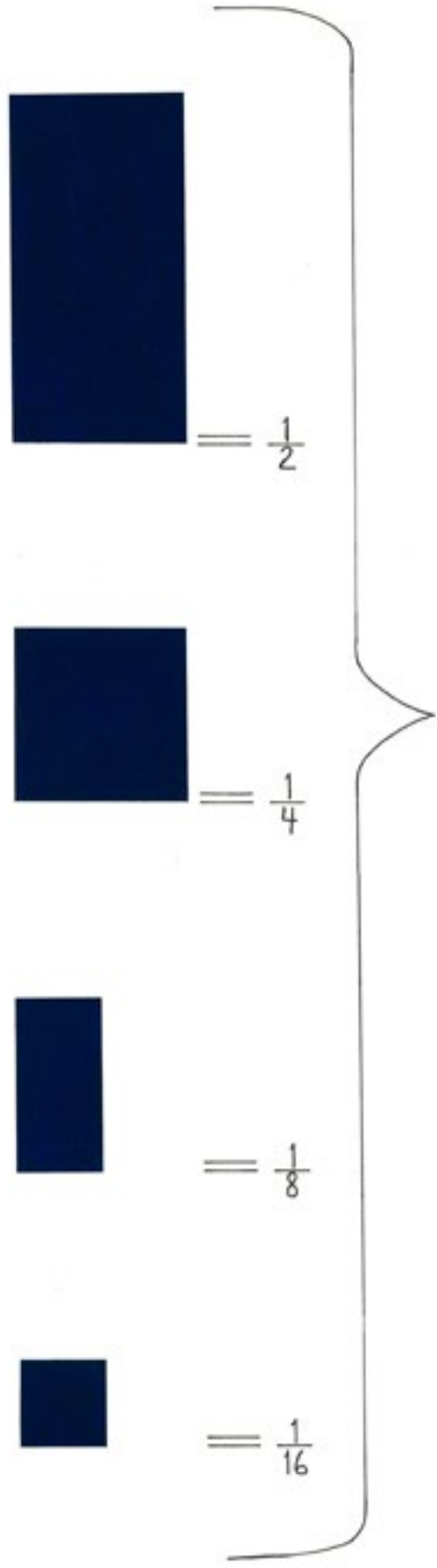




The two diagonals divide the square into 4 equal triangles.



Joining of the midpoints of two pairs of opposite sides divides the square into 4 equal squares.



Similarities

Equivalences



≡



≡



≡



≡



≡



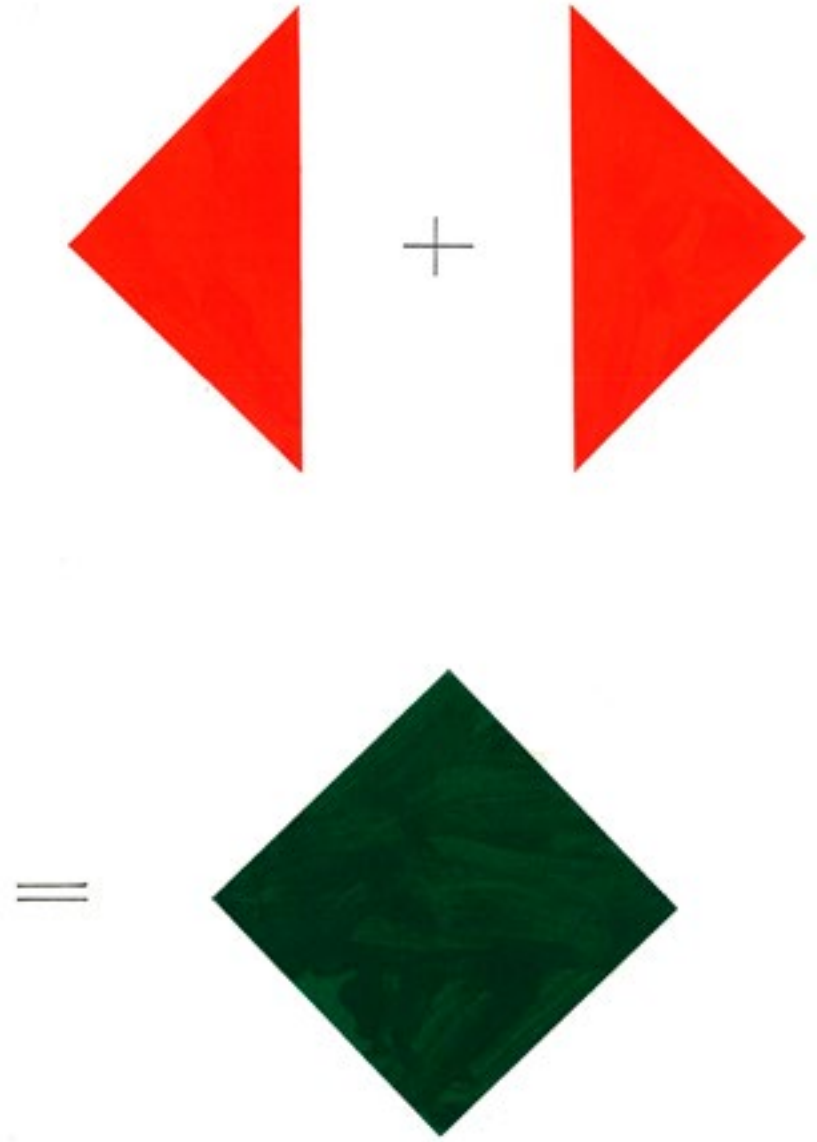
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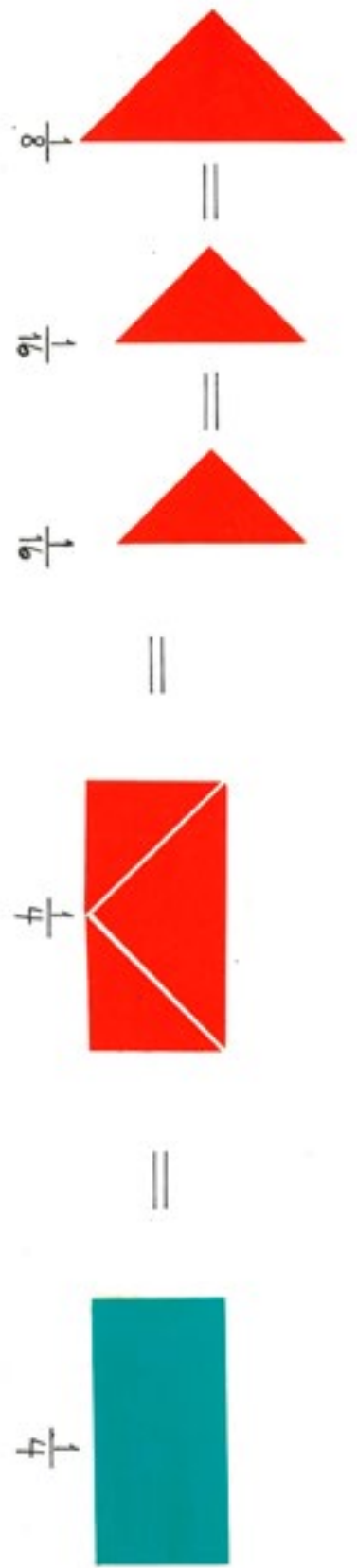
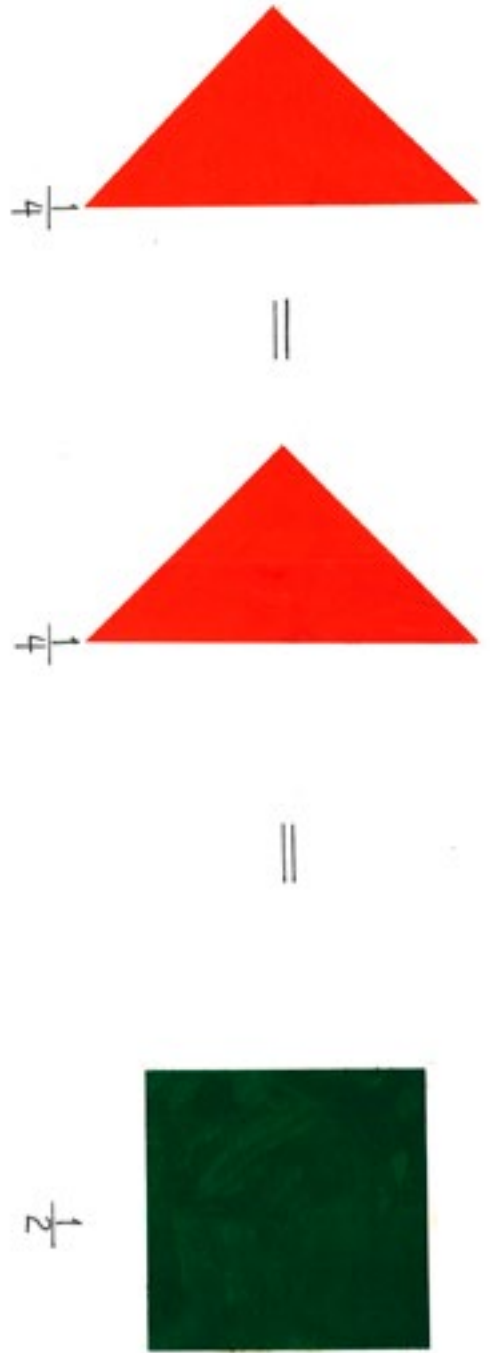
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Combination



Combinations





≡



≡



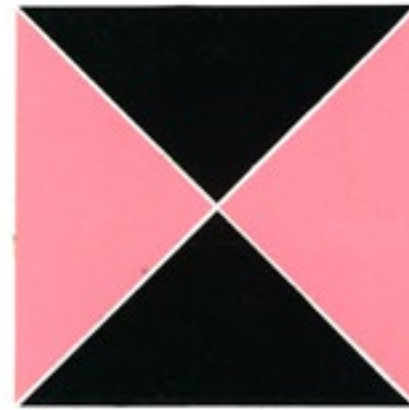
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Equivalences



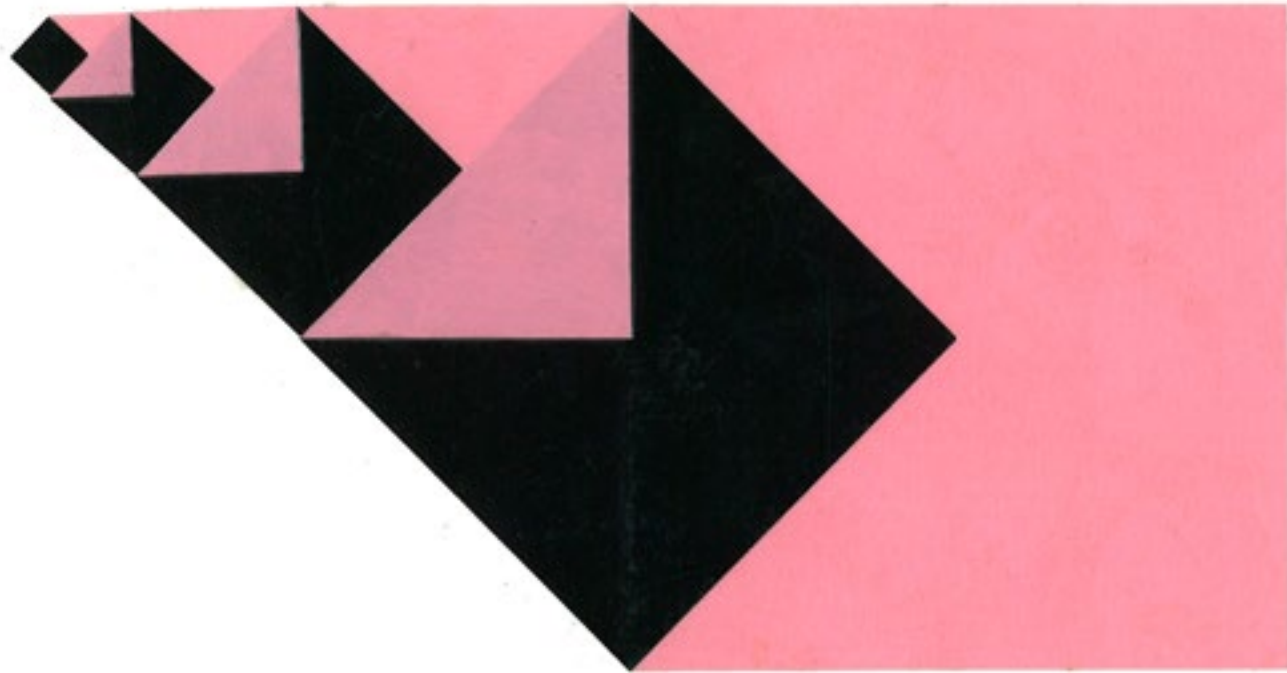
The area of the inscribed square is one half the area of the circumscribed square. The diagonal of the inscribed square is equal to the side of the circumscribed square.



The area of a square whose side is equal to the diagonal of another square is equal to twice the area of the latter.



The idea of infinity within a limit



Another demonstration of infinity within a limit

*The sum of the squares
constructed on the sides
of a right-angled triangle
is equal to the square
constructed on the hypotenuse.*

