

MEASURING WITH TRISQUARES

Picture Puzzles

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Publisher ... Mathematics Centre
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This Picture Puzzle is based on
... Task 237, Trisquares
Teaching Notes
... mathematicscentre.com/picturepuzzles/teachingnotes.htm

Picture Puzzles

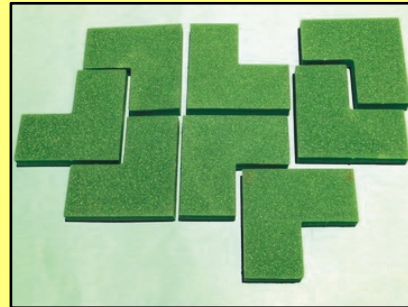
To Do

1. Count squares to find the area of Trisquare shapes.
2. Count square sides to find the perimeter of Trisquare shapes.
3. Try some area and perimeter puzzles.

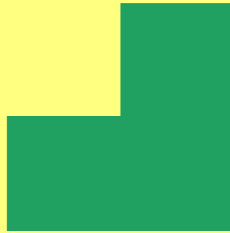
You Need

- Eight Trisquares
- Square graph paper

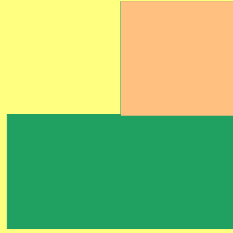
Trisquares



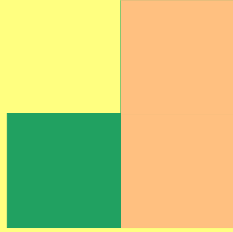
A Trisquare is made from 3 squares.



Picture Puzzles

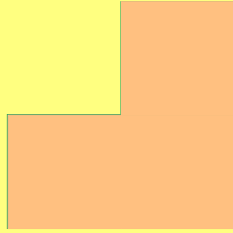


Picture
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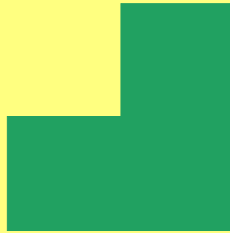


Picture
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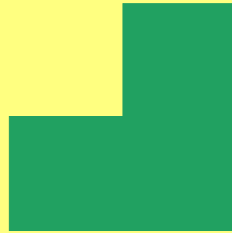
Picture Puzzles



The area of a Trisquare is 3 squares.



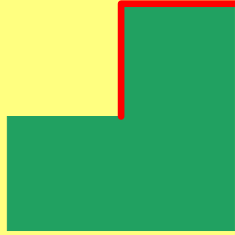
Perimeter is counted by the sides of the square.



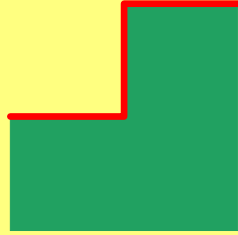
Picture Puzzles

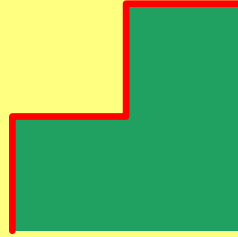


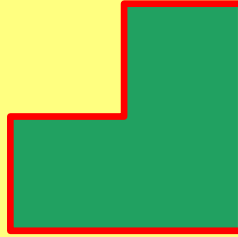
Picture Puzzles

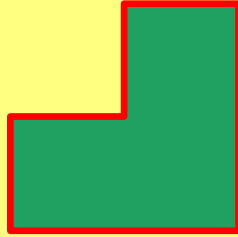


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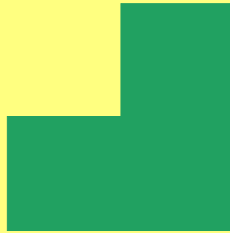








The perimeter of a Trisquare is 8 sides of a square.



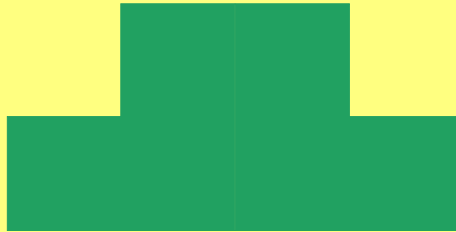
Picture Puzzles

Make this shape.



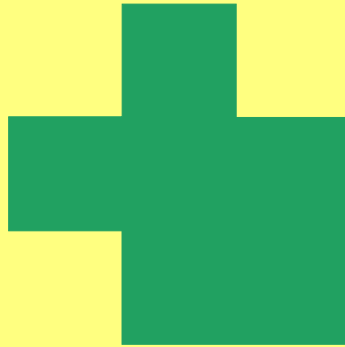
Count its area and perimeter.

Make this shape.



Count its area and perimeter.

Make this shape.



Count its area and perimeter.

Picture Puzzles

Make this shape.
Draw it on graph paper.



Count its area on the shape.
Count its area on the paper.

Make more shapes with two Trisquares.

Draw each one and count its perimeter.

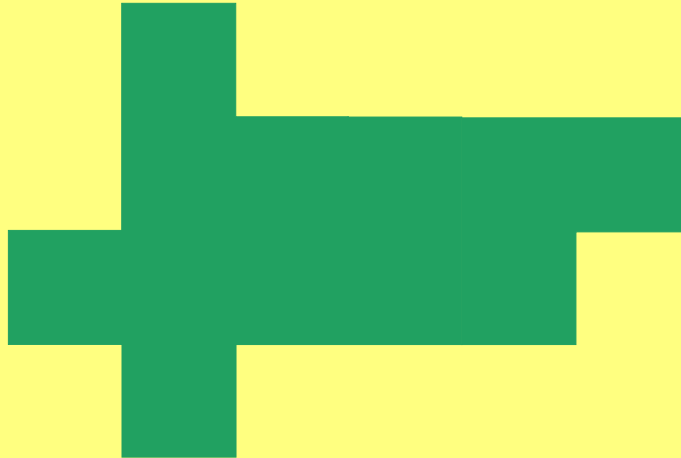
Find a way to calculate the perimeter without counting.

Make this shape.



Find its area and perimeter in two ways.

Make this shape.



Find its area and perimeter in two ways.

more

The area of a Trisquare shape is 6 squares?

What is its smallest possible perimeter? (minimum)

What is its largest possible perimeter? (maximum)

Make and draw 1 minimum shape & 1 maximum shape.

The area of a Trisquare shape is 9 squares?

What is its smallest possible perimeter? (minimum)

What is its largest possible perimeter? (maximum)

Make and draw 1 minimum shape & 1 maximum shape.

The area of a Trisquare shape is 12 squares?

What is its smallest possible perimeter? (minimum)

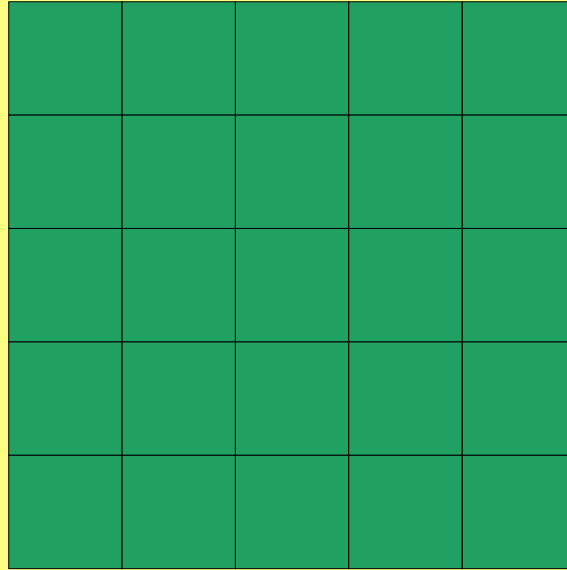
What is its largest possible perimeter? (maximum)

Make and draw 1 minimum shape & 1 maximum shape.

Make and draw one shape for each possible perimeter between the minimum and the maximum for a Trisquare shape with an area of 12.

even more

What is the formula for area of a square



if area is measured by unit squares?

THE END...

...OR IS IT?