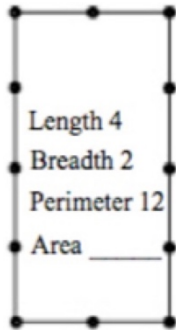




WHOLESOME RECTANGLES



This activity is about rectangles with whole number dimensions. With other lengths and breadths there are infinitely many possible rectangles so here we just stick to whole numbers.

What do you know about rectangles? What is the smallest rectangle you can make with edge lengths that are whole numbers?

How many rectangles can you make with perimeter 12 units?

You might like to experiment by making rectangles with chains of paper sticks or with toothpicks.

Draw your rectangles on squared paper and record their length, breadth, perimeter and area.

Choose another perimeter and find all possible rectangles with that same perimeter. You could make a table to keep a record of all your results.

Can you find other rectangles with the same perimeter and different areas?

For rectangles with the same perimeter, what do you notice about the rectangle with the biggest area?

Can you find rectangles with the same area and different perimeters?

What else do you notice? Can you find connections with factors and multiples?

HELP

If you draw the rectangles on squared paper, you can find the perimeter by counting the units of length, and you can find the area by counting the squares each of which has area 1 square unit.

NEXT

Can you find all the rectangles with perimeter 22 without using toothpicks or first drawing the rectangles?