RESEARCH CORNER

So far, we have received only one contribution concerning palindromic numbers. It comes from Peter Brandson in Year 10 at North Sydney Boys' High School, who says:

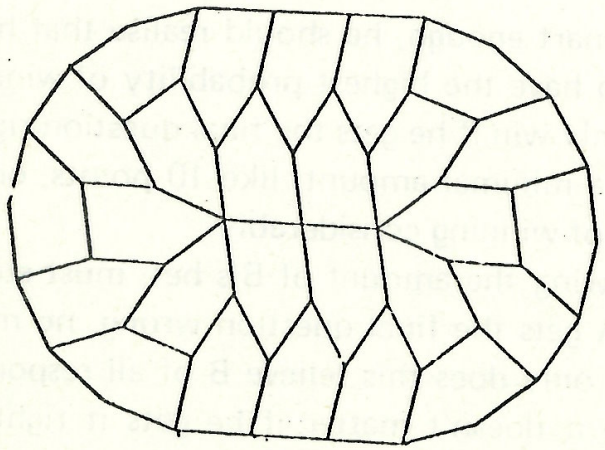
Sir,

As you wrote in Vol. 13, No. 1, all palindromic numbers with an even number of digits are divisible by 11. When you have a palindromic number with three pairs of equal digits (for example 227722) and divide it by 11, the result is another palindromic number, of the form x0y0x, where x is the value of the first and last two digits of the original palindromic number, and y is the value of the two central digits of the original palindromic number.

Here are a few examples:

$$112211 \div 11 = 10201$$
$$559955 \div 11 = 50905$$
$$774477 \div 11 = 70407$$
$$883388 \div 11 = 80308$$
$$999999 \div 11 = 90909.$$

Remember, we promised a Sanyo Calculator to the writer of the best letter on the subject of palindromic numbers. The winner will be announced in Vol. 14 No. 1. So keep on researching!



Tiling by J. Hirschhorn