THE COPERNICUS MAGIC SQUARE

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The 500th birth day anniversary of the great Astronomer Copernicus was celebrated by the Indian National Science Academy at Delhi on 19/2/1973 which was the 500th birth day for the scientist Copernicus.

To-day I have taken 19-2-73 and 500 as the first line of the following magic square. Here 19+2+73+500=594. Therefore this will be a magic square of the constant 594. The other 12 numbers are selected and written below the above 4 numbers in such a way that no number is again repeated and the sum of the 4 numbers in each horizontal or vertical line is equal to 594.

Thus for example 501+72+05+16=594 (Numbers in one of the horizontal lines). Similarly 19+501+03+71=594 (one of the sets of the four vertical columns). The 2 diagonal lines have also such numbers that they form a total=594.

Thus see 19+72+499+04=594
same is the case for the 4 numbers on the other diagonal (71+18+05+500=594).

\[
\begin{array}{cccc}
19 & 02 & 73 & 500 \\
501 & 72 & 05 & 16 \\
03 & 18 & 499 & 74 \\
71 & 502 & 17 & 04 \\
\end{array}
\]

Thus in this way the sum is 594 in 10 ways (4 horizontal lines, the four vertical lines and the 2 diagonal lines).

Not only this much, but this square is so interesting that the sum is 594 in 10 more ways also. Thus see the four numbers in each corner of the above square.

Vol. 9. No. 1
and the numbers nearby to every corner number. They form four squares and
the sum of the four numbers in every corner square is also 594.

Thus 19 + 02 + 501 + 72 = 594
73 + 500 + 05 + 16 = 594
03 + 18 + 71 + 502 = 594
499 + 74 + 17 + 04 = 594

The central square of 4 numbers 72, 05, 18, 499 has also the sum equal to 594.
The other middle squares such as 501, 72, 03, 18 and 05, 16, 499, 74 are also
such that the sum is 594.

The four corner numbers of the big square that means 19 + 500 + 04 + 71 also add
upto 594 and there are four more ways which I leave for the readers to find out
where also the sum of 4 symmetrically placed numbers is 594. Thus you will
find that there are 22 different ways in which the sum of the 4 numbers is 594
in this wonderful magic square. Is this not a very miraculous magic square on
the 500th birth day of the great Scientist Copernicus? I hope all the readers
will enjoy the peculiar properties of this magic square. For other information
you are requested to write to me on the address given above.