## Number Structure

1. Develop rules for addition and multiplication table for hexadecimal.

Symbols are 0123456789 A BCDEF.
F=1610-1 $=1016-1$
$\mathrm{E}=10-2$
$8+8=10$
$\mathrm{A}=8+2 \quad 9=8+1$
$7=8-1 \quad 6=8-2$
$C=8+4$
2. Calculate the following:

2:12:30 x:30
0:12:30 x 30:00
2:31:24x:04
2:31:42+2:45:45+1:54:49+3:51:41
3. Convert :
to hexadecimal and back $1000{ }_{10}=$
to decimal and back 1EF $16=$
4. Using cardinal numbers develop a system for our monetary system including quarters, \$2, and $\$ 20$ bills and show a table up to 200.
5. Do following by approximation in your head: $3701 \times 15,78 \times 72,123 \times 148,252 \times 248$,
2.5277x24803.1 7800.13x 7205.132
6. The rules for odd magic squares are:

1. Start with one in middle top line.
2. Move up along a right diagonal
3. When off square, move to opposite end and place number.
4. When blocked, drop vertically down and place number (a corner counts as a block
Note sum of rows, columns, or diagonals $=n\left(n^{2}+1\right) / 2$ where $n$ is dimension of one side.
Finish 5 x 5 magic square $\quad$ Complete 7 x 7 magic square

