M(6) generation

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1 Partitions

Given all the sources for $M(1)$, $M(2)$, $M(3)$, $M(4)$, and $M(5)$

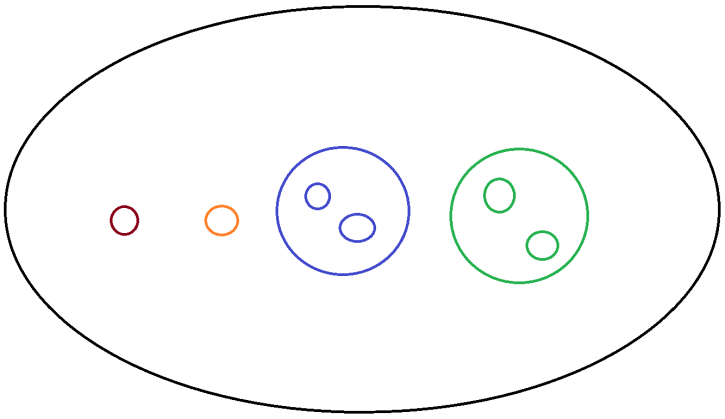
We can find $M(6)$

For each source in $M(1)$, we can append any sources from any partition of 5 with more than 2 pieces.

The partitions of 5 with more than 2 pieces are:

$1+1+1+1+1$
$1+1+1+2$
$1+1+3$
$1+2+2$
$1+4$
$2+3$

For example given the atom from $M(1)$ we can append sources from $M(1)$ and $M(2)$ and $M(2)$, since $1 + 2 + 2$ is a partition of 5 with more than 2 pieces. Figure 1 gives an example of the concatenation of these four sources from $M(1)$, $M(1)$, $M(2)$, and $M(2)$.



The following pages will show the generation of the sources of $M(6)$

For reference, the partitions of 2, 3, 4, and 5 with more than 2 pieces are given now.

2:

$1+1$

3:

$1+1+1$
$1+2$
3

4:

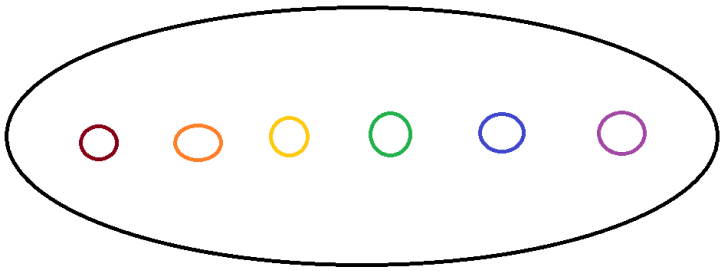
$1+1+1+1$
$1+1+2$
$1+3$
$2+2$

5:

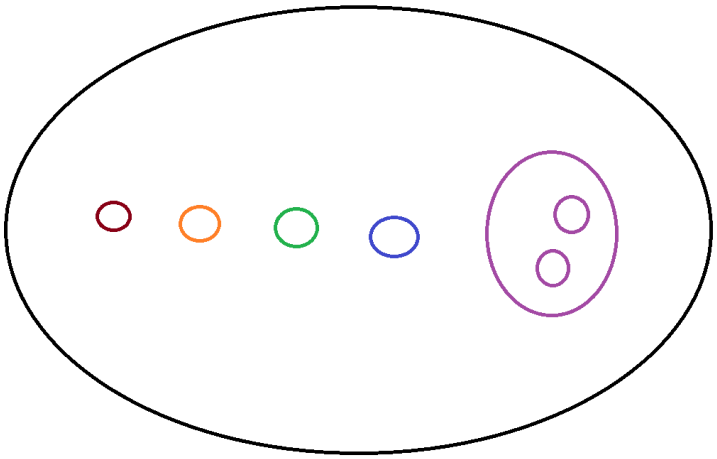
$1+1+1+1+1$
$1+1+1+2$
$1+1+3$
$1+2+2$
$1+4$
$2+3$

We will have to check for repeats.

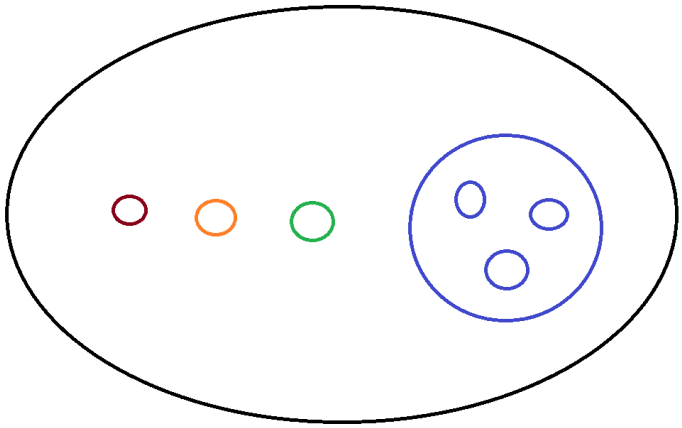
$$M(1) + [M(1) + M(1) + M(1) + M(1) + M(1)]$$



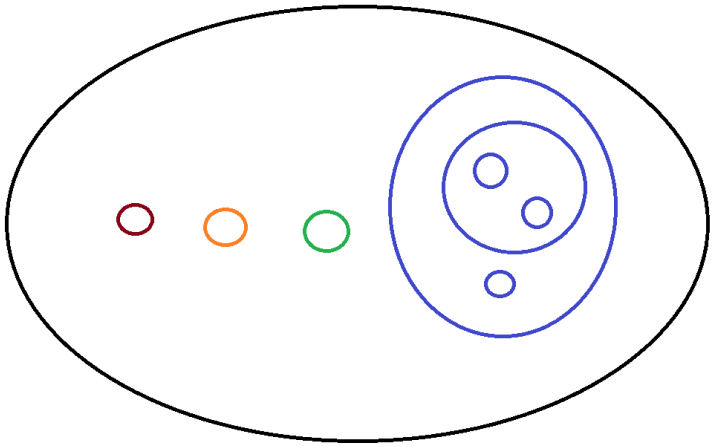
$M(1) + [M(1) + M(1) + M(1) + M(2)]$



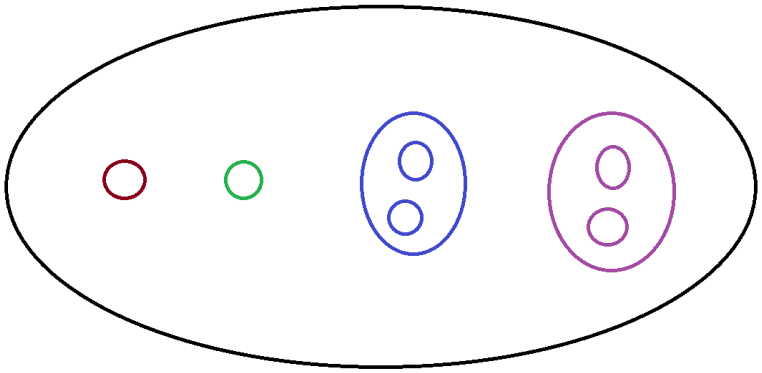
$M(1) + [M(1) + M(1) + M(3)]$



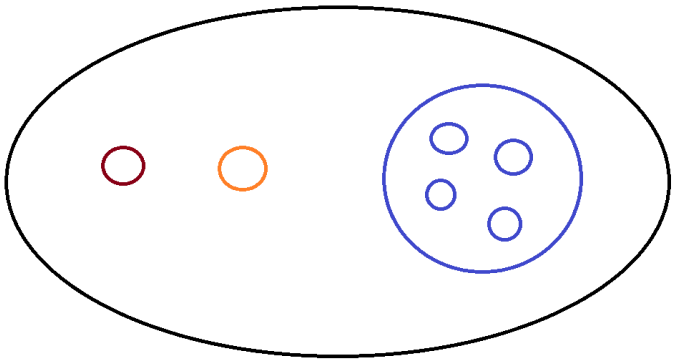
$M(1) + [M(1) + M(1) + M(3)]$



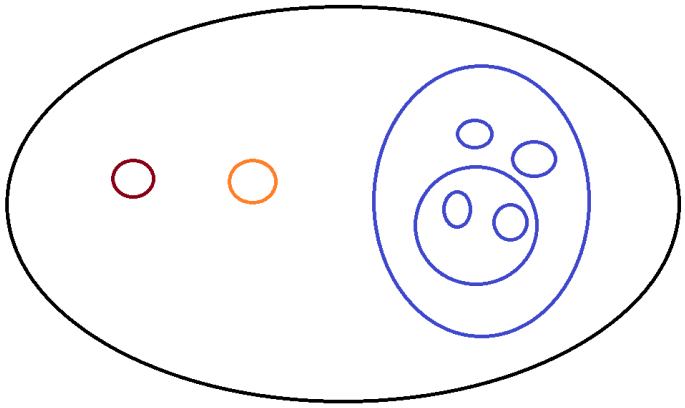
$M(1) + [M(1) + M(2) + M(2)]$



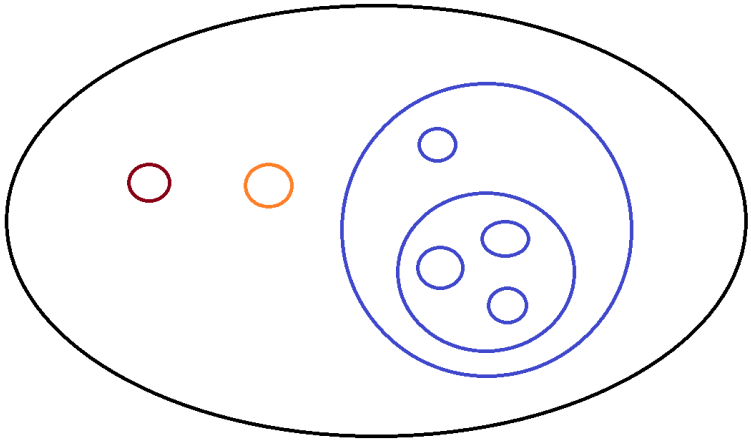
$M(1) + [M(1) + M(4)]$



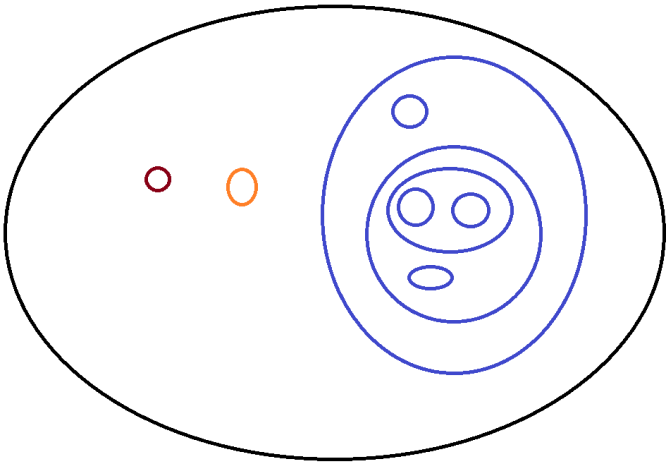
$M(1) + [M(1) + M(4)]$



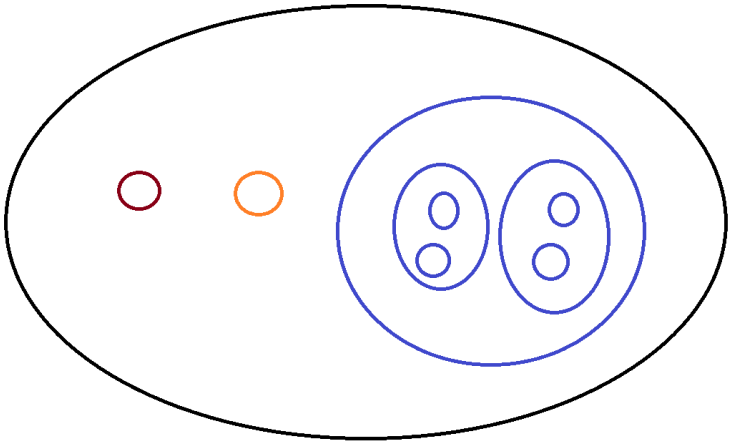
$M(1) + [M(1) + M(4)]$



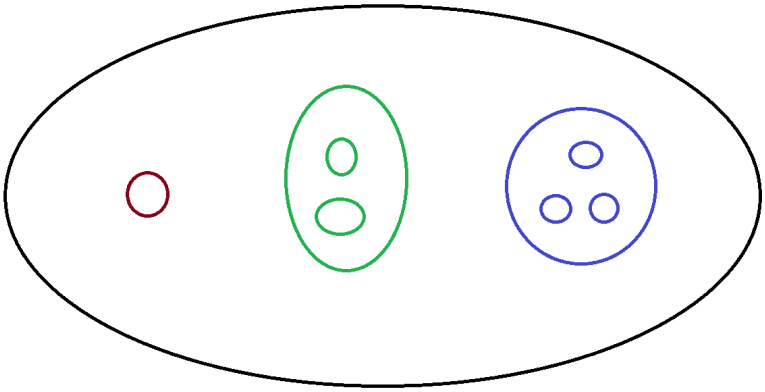
$M(1) + [M(1) + M(4)]$



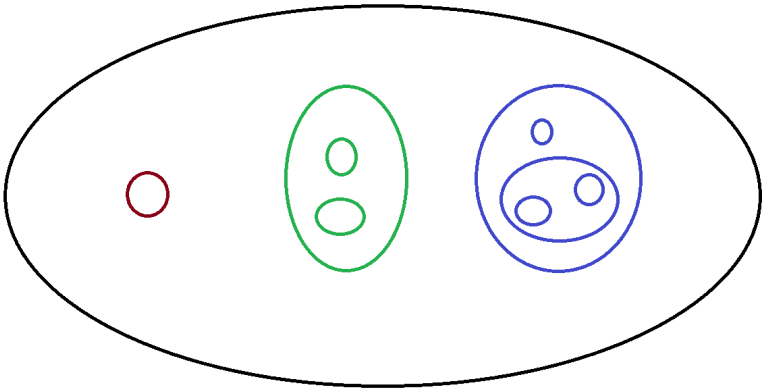
$M(1) + [M(1) + M(4)]$



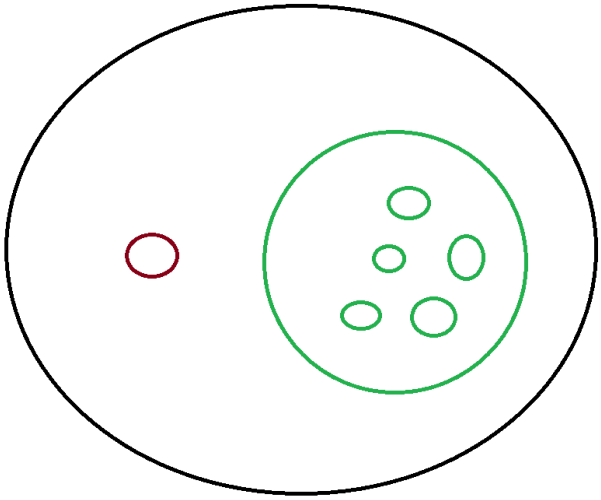
$M(1) + [M(2) + M(3)]$



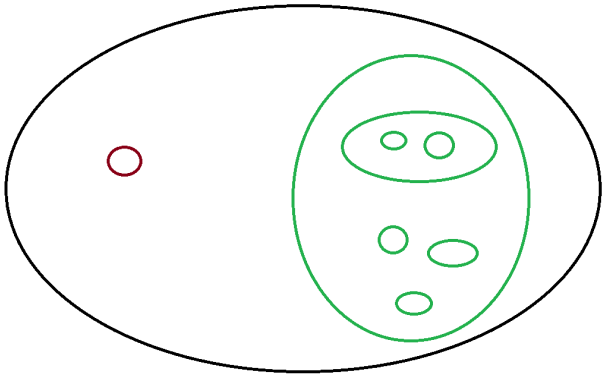
$M(1) + [M(2) + M(3)]$



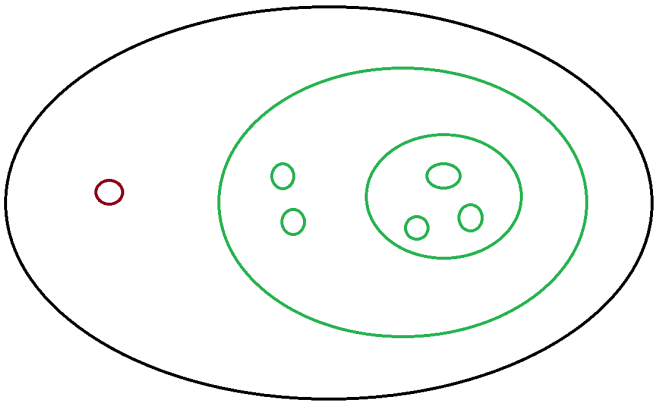
$M(1) + [M(5)]$



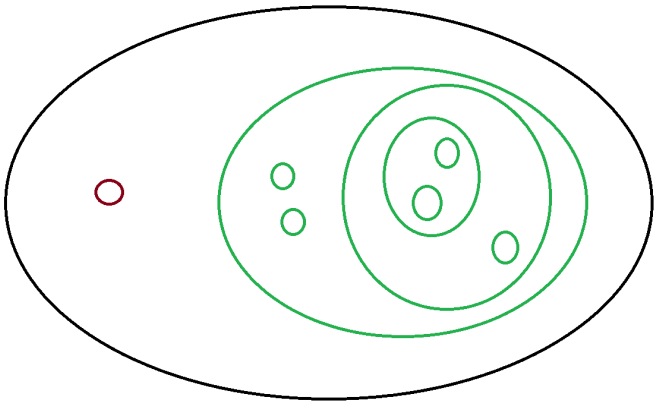
$M(1) + [M(5)]$



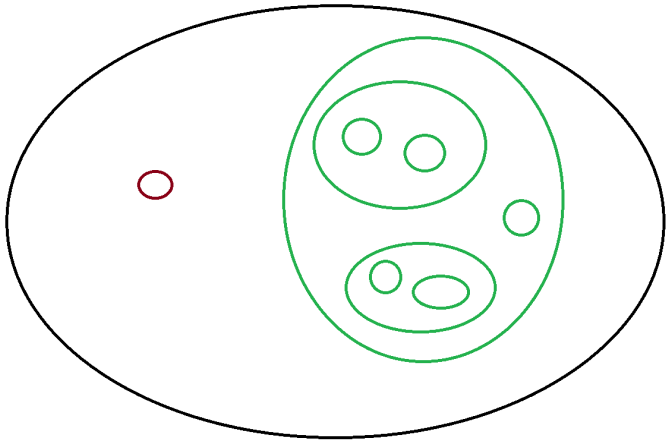
$M(1) + [M(5)]$



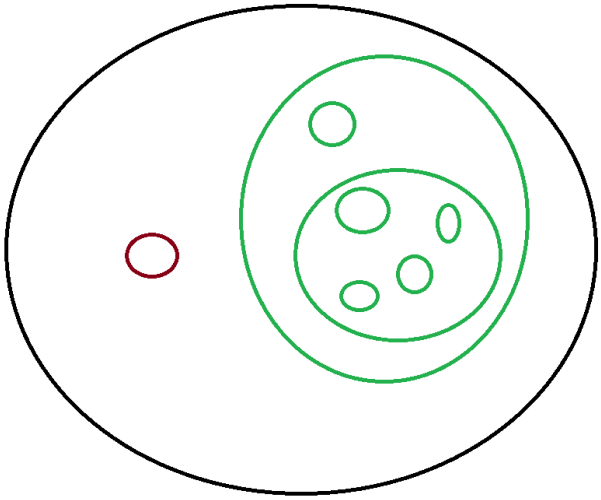
$M(1) + [M(5)]$



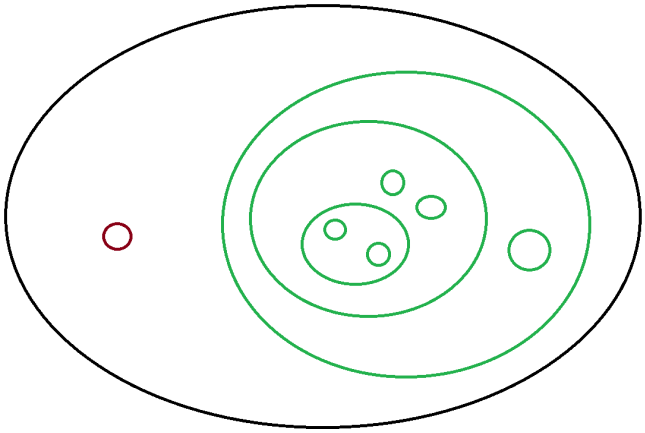
$M(1) + [M(5)]$



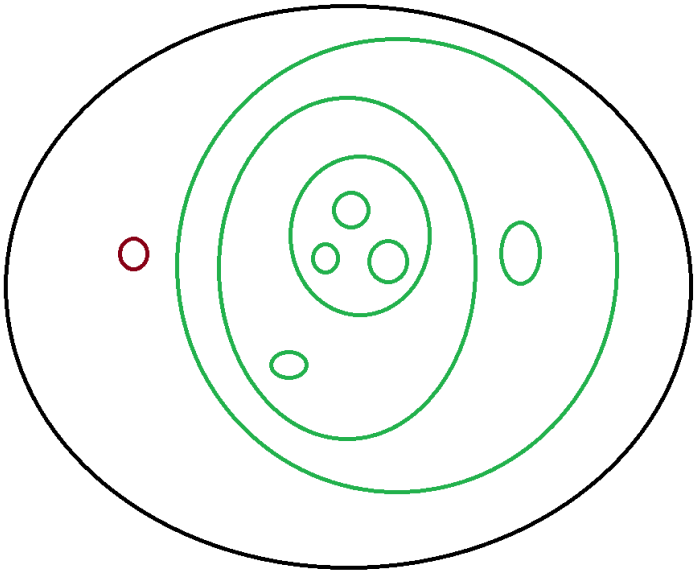
$M(1) + [M(5)]$



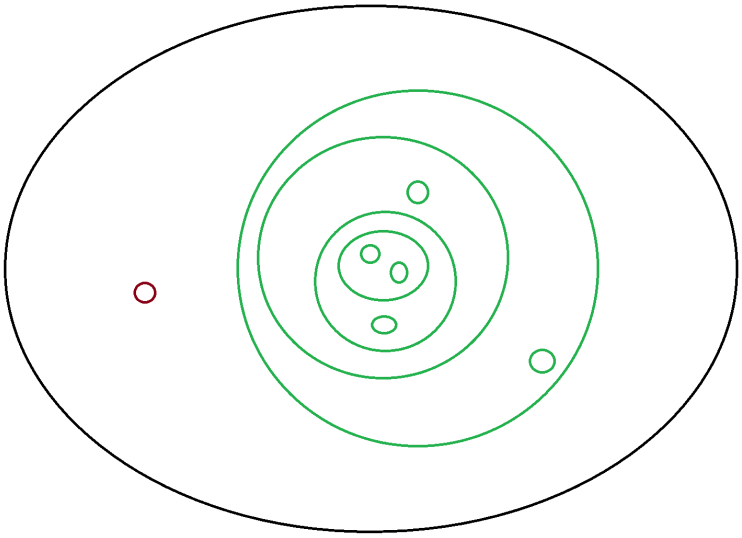
$M(1) + [M(5)]$



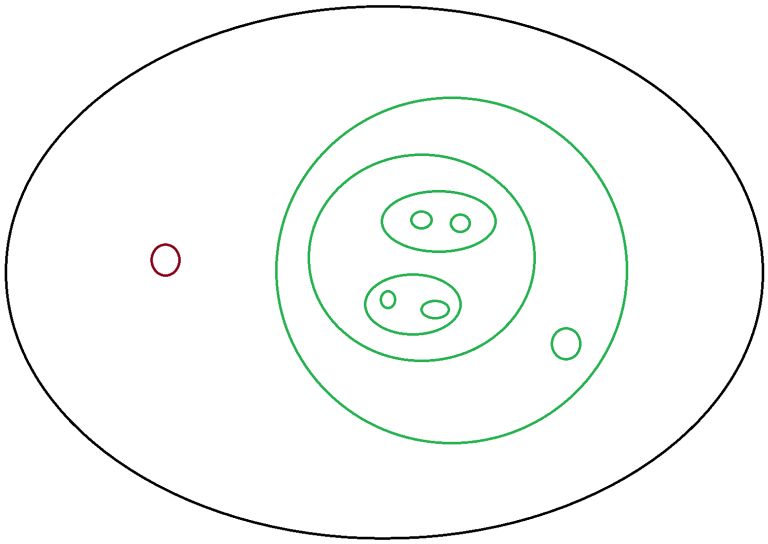
$M(1) + [M(5)]$



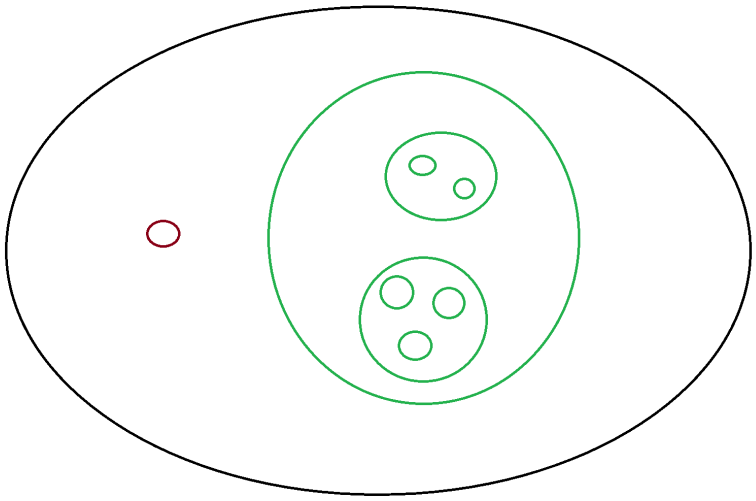
$M(1) + [M(5)]$



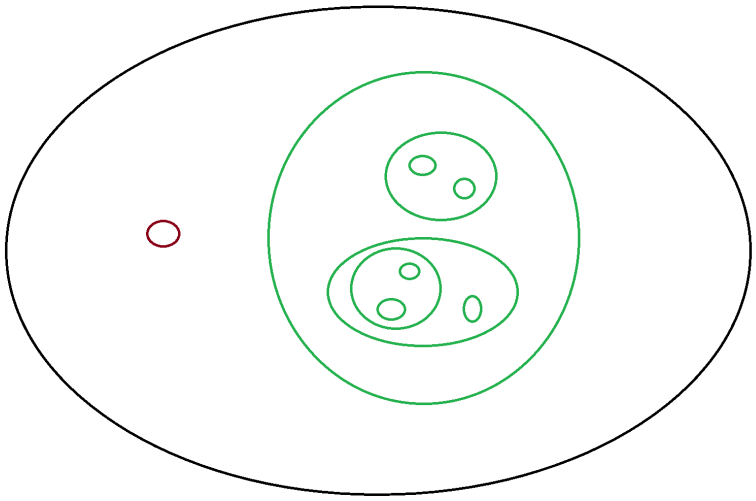
$M(1) + [M(5)]$



$M(1) + [M(5)]$



$M(1) + [M(5)]$



$M(2) + [M(1) + M(1) + M(1) + M(1)]$

Repeat of above.

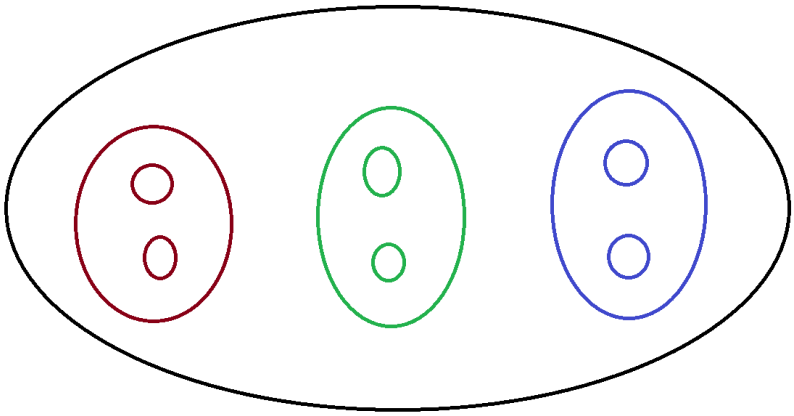
$M(2) + [M(1) + M(1) + M(2)]$

Repeat of above.

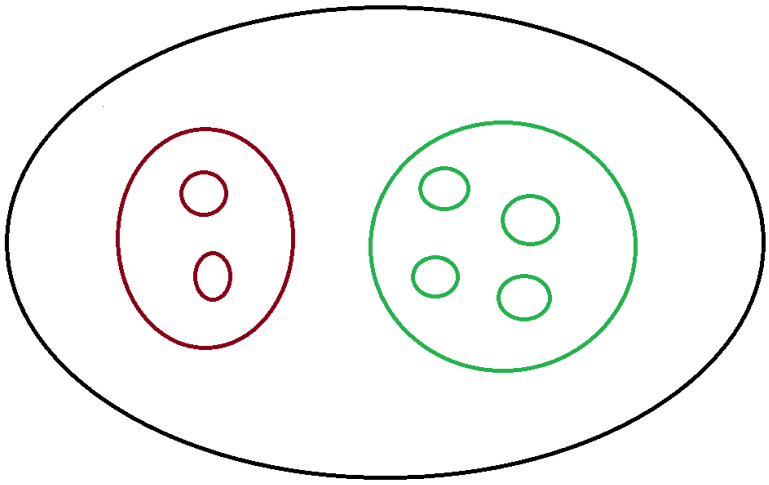
$M(2) + [M(1) + M(3)]$

Repeat of above.

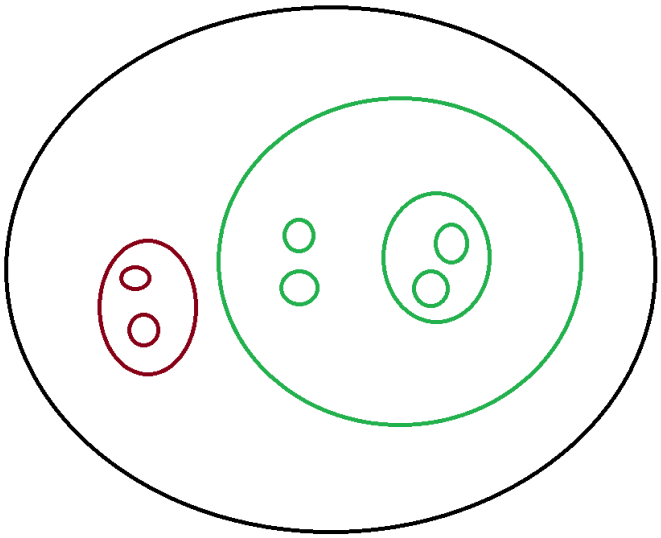
$M(2) + [M(2) + M(2)]$



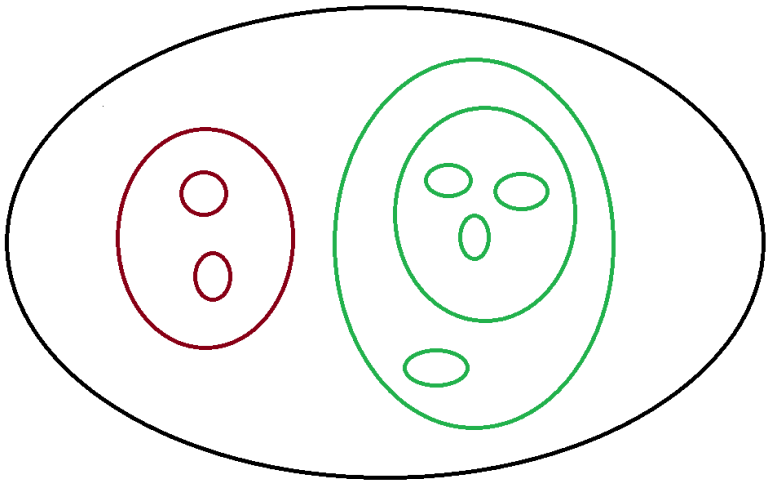
$M(2) + [M(4)]$



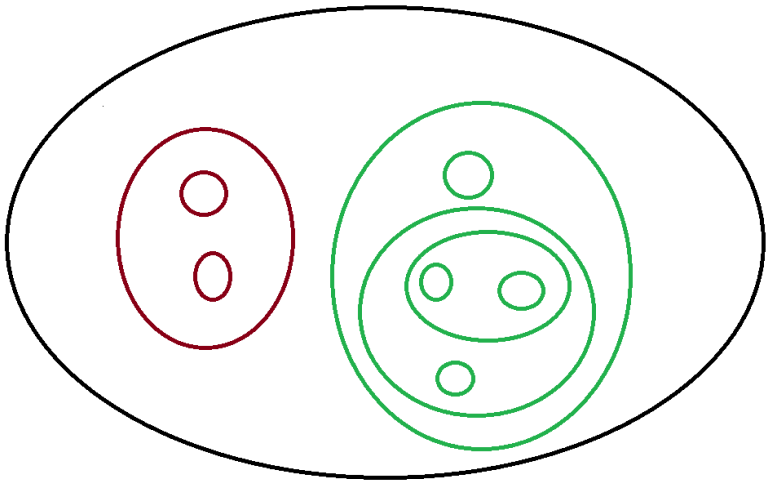
$M(2) + [M(4)]$



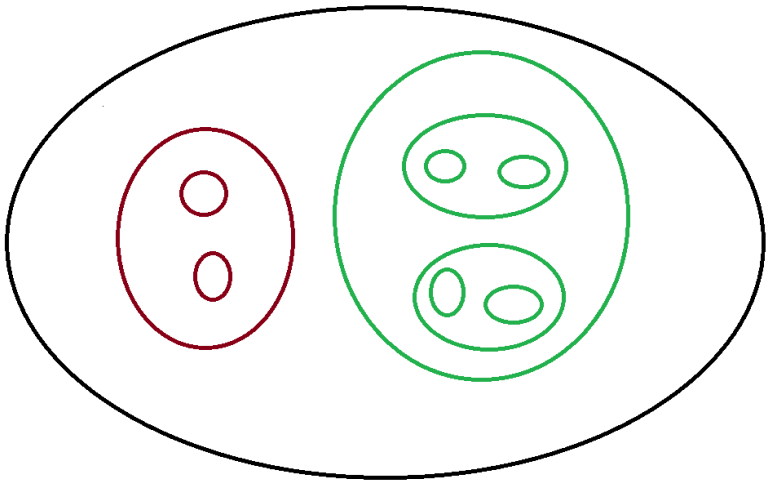
$M(2) + [M(4)]$



$M(2) + [M(4)]$



$M(2) + [M(4)]$



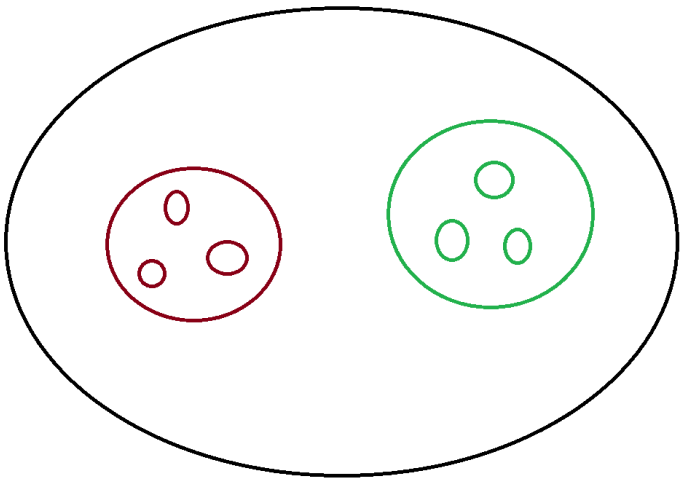
$M(3) + [M(1) + M(1) + M(1)]$

Repeat of above.

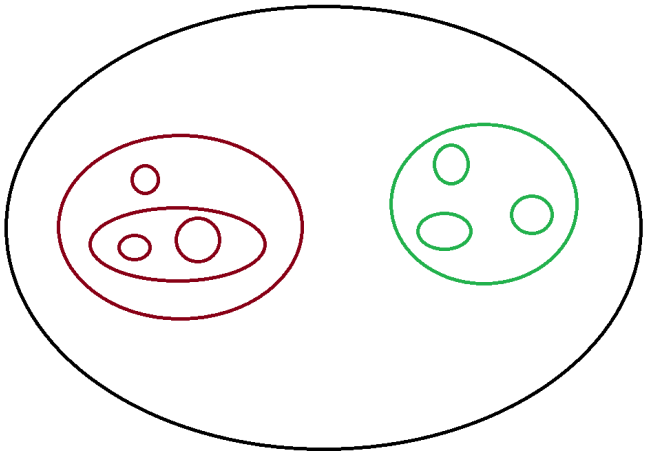
$M(3) + [M(1) + M(2)]$

Repeat of above.

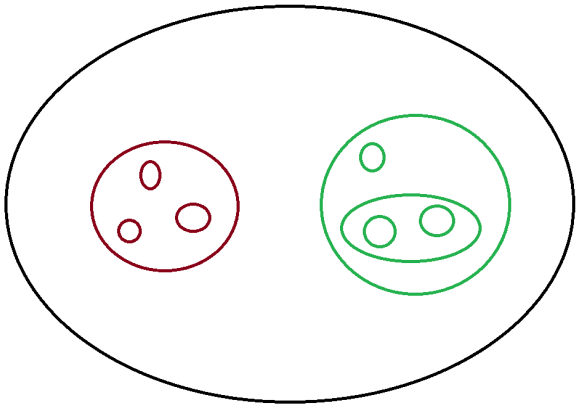
$M(3) + [M(3)]$



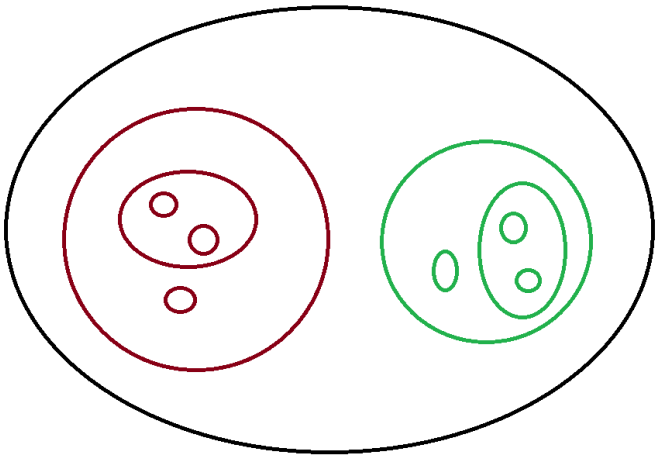
$M(3) + [M(3)]$



Repeats:



$M(3) + [M(3)]$



$M(4) + [M(1) + M(1)]$

Repeat of above.

$M(4) + [M(2)]$

Repeat of above.

$M(5) + [M(1)]$

Repeat of above.