MA511 HW25 Sol.

#4.4.4

a) $\det M = x_j$

b) Look at column j of AM, it is $Ax = b$.
All other columns of AM are the same as in A,
So, $AM = B_j$.

c) $\det A \det M = \det B_j \Rightarrow x_j = \det B_j / \det A$

#4.4.6

All the edges are three times as long. So the volume is multiplied by 3^n.