The recursive equations of *K*n is



We can show that (in *NoSlip\_MultiMaterial-Oct09.nb* file)



where



Hence,



and



Therefore,



and



Let



We find that (in *NoSlip\_MultiMaterial-Oct01.nb* file)



(1) = (I)+(II) gives:

(2) = (I)+(III) gives:



(3) = (I)-(II) gives:

(4) = (I)-(III) gives:



Then,

(1)+(2) = 2(I)+(II)+(III) gives:

 (5)

(1)-(2) = (II)-(III) gives:

 (6)

(3)+(4) = 2(I)-(II)-(III) gives:

 (7)

(3)-(4) = -(II)+(III) gives:

 (8)

We find that eqs. (6) and (8) are the same. Note that



We multiply (6) by  and (7) by  and then subtract each other to get .



























































