original grouping n the new unit sq. is attached.

(property of sums of even #s)

1. an even net gain in periphery translates to an even grouping.
2. The cases 1-5 are exhaustive
3. The cases 1-5 all result in even net gains in periptery.
4. QED.

8. QED.

(I might have included the cases as a subproof of step 7 instead)