

If 12 boxes were used with 10 popped kernels in the last box, the 11 full boxes would each hold 120 popped kernels and the last box would hold 10. That would make $11 \cdot 120 + 10 = 1,320 + 10 = 1,330$ popped kernels, so there must be more than 12 boxes with 10 popped kernels in the last box to hold 1,450 kernels.