

# Re: Pattern Possibilities

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- *From:* "[Mr.] Lynn Kurtz" <kurtz@xxxxxxxxxxxxxxxx>
  - *Date:* Wed, 15 Aug 2007 19:05:26 GMT
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On Wed, 15 Aug 2007 11:16:32 -0700, inkexit@xxxxxxxx wrote:

Ink an 8" x 8" grid on 95 pieces of paper. Check one square out of the 64 squares of the grid with pencil, or leave the grid blank. Do this for all 95 pieces of paper.  
Erase all checks. Repeat.

How many different patterns of check placement can you create before repeating yourself?

By "repeating yourself" do you mean each of the 95 sheets in some order have the same marks as some previous version of the 95 sheets in the same order? Holding the sheets right side up? If so...

On page 1, there are two choices (check or no check) for each of the 64 squares for  $2^{64}$  distinct patterns. Ditto for page 2 thru 95. So you get  $(2^{64})^{95} =$

1829673664174779885002165504637402565007523331001975600418845818612812  
8244356029898808963344994683698369631499211643708674655292741681502209  
1324873677513387043923211145477917136833698474998392989741636792486000  
9281763410001179573048915011290676059616616707330605798907756600122916  
5861411380406909010591986037182080878016674457118851216662328109859327  
0817181614297552879649808345925121706295739480817656585628368821120497  
6653945606242886647248765778276815274539231529154285783898100586922674  
9624673505776012095188911523119323454844958382587057846905771767705037  
3356057205180717001569743940752269113669157378653258136302544838219625  
8830777154827433308531340880252208387873357593750577369925342225778979  
0968995168034639215704336089980566586952548841173235552059778455345723  
8945335087309626177555457993300628456963926476535335113326425043829999  
0760559034725552708648425788336654244916319466739826380916694556539432  
7128793970565698722048728108474793853627055720080113845979219660186486  
3384086929465373594944610678265255091810017899879217317523380742467705  
2291010904753009138799474166309238859180856040822679584096982525658561  
4314893713418293552477275050464598559624541926524171086336662385003922  
9301388392332631174896856495222977034143259867468296403631707925065640  
4519237746490178204547561770898594697708210107913716416745069626268008

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1311138578251192498259328564947196745547074866381290462350466893657634  
5411499519342005414601180711821799780036810961227501683227277350258142  
8284320373135500693584090400992175642549852247083517426434831602949288  
3824482741306901018545227105688563740678230658042978948967489825836763  
2513255497335353144595086491979046765421882764040668377554850216049991  
0480039337400398228744707560343257718564799770729645607999459255833013  
6712574831416726787521462534170628122850561828692507729353267420735404

ways. Of course, if you didn't mean that, you need to be more specific  
in your question.

--Lynn

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