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Brendan McKay<sup>+</sup>  
more

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2 pages  
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Brendan McKay

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Thanks! Beautiful! Neil  
>>From anucsd.anu.edu.au!bdm Tue Jul 23 22:32:12 EST 1991  
>>Received: by gauss; Tue Jul 23 08:33:30 EDT 1991  
>>Received: by inet.att.com; Tue Jul 23 08:33 EDT 1991  
>>Received: from tyl (tyl.anu.edu.au) by anucsd.anu.edu.au (4.1/SMI-4.0)  
>> id AA15659; Tue, 23 Jul 91 22:32:12 EST  
>>Date: Tue, 23 Jul 91 22:32:12 EST  
>>From: bdm@anucsd.anu.edu.au (Brendan McKay)  
>>Message-Id: <9107231232.AA15659@anucsd.anu.edu.au>  
>>To: njas@research.att.com  
>>Subject: More (but not Moore) sequences.  
>>Status: R

lib

>>Hi Again!

>>(1) There are some counts of various planar cubic graphs in JCT (B) 45 (1988)  
>>305-319. Here are some extra values for column n<sub>5</sub>, namely isomorphism  
>>classes of cyclically-5-connected planar cubic graphs on n vertices:

n	#
20	1
22	0
24	1
26	1
28	3
30	4
32	12
34	23
36	71
38	187
40	627
42	1970
44	6833
46	23384
48	82625
50	292164

2

A6791

table is on p. 309

>>Reference: early values may be in ref [7] of the paper above, but most are  
>>due to me and unpublished (yet).

>>(2) Tables of graphs with transitive automorphism groups occur in Ars  
>>Combinatoria 30 (1990) 161-176. This covers up to 26 vertices. For  
>>27 vertices, the number of such graphs is 1434 and the number which  
>>are connected is 1434-7-1-1=1425. These last numbers come from  
>>B. D. McKay and C. E. Praeger, Vertex-transitive graphs which are not  
>>Cayley Graphs I, Journal of Australian Mathematical Society, to appear.  
>>McKay and Praeger also give the number of vertex-transitive graphs  
>>which are not Cayley graphs, up to 27 vertices. Starting at the first  
>>non-zero (n=10), we have 2,0,0,0,0,4,8,0,4,0,82,0,0,0,112,0,132,0.

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>>The orders where there is at least one vertex-transitive graph that is not  
>>a Cayley graph are not all known. The smallest orders are 10,12,15,16,18,20,24,26,28,  
>>58,60,63,64. It is not known if the next value is 66 or 68. (Me and  
>>C. E. Praeger, Vertex-transitive graphs which are not Cayley Graphs II,

6

A6792

home?

>>in preparation.)

>>

>>(3) There are zillions of numbers in B.D. McKay, Applications of a technique  
>>for labelled enumeration, Congressus Numerantium 40 (1983) 207-221.

>>

>>(4) Labelled acyclic digraphs by the order and the length of the longest  
>>path appear in B. D. McKay, On the shape of a random acyclic digraph,  
>>Math. Proc. Cambridge Philos. Soc. 106 (1989) 459-465. (I don't know  
>>what you can do with 2-dimensional sequences, though.)

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>>

>>(5) Various counts of 3-connected cubic bipartite planar graphs occur in  
>>JCT (B) 38 (1985) 279-297.

od 7/91

>>

>>(6) The classical Ramsey numbers  $R(3,3)$ ,  $R(3,4)$ , ...,  $R(3,9)$  are  
>>6,9,14,18,23,28,36. No more exact values are known. The most recent  
>>value found was  $R(3,8)=28$ : B.D. McKay and Zhang K.M., The value of the  
>>Ramsey number  $R(3,8)$ , J. Graph Theory, to appear. [Incidentally, this  
>>paper was mentioned in the New York Times on Sunday July 14, in the  
>>Week in Review section.] I have a few more of the Ramsey-type results  
>>around; I'll see if any seem suitable.

>>

>>Incidentally, if you forward me a copy of this mail (and the previous  
>>one with numbers in it) back to me, I will check it. That will guard  
>>against transmission errors as well as begin further insurance against  
>>my typing errors.

>>

>>Anyway, it's getting late (10:30pm is late for me!) and I must go home.  
>>Cheers, Brendan.

>>

>>

>>

From pucc.PRINCETON.EDU!MAILER%CGEUGE11.BITNET Tue Jul 23 09:40:03 SET 1991  
Received: by alice; Tue Jul 23 08:32:44 EDT 1991  
Received: by inet.att.com; Tue Jul 23 08:32 EDT 1991  
Received: from CGEUGE11.BITNET by pucc.PRINCETON.EDU (IBM VM SMTP R1.2.2MX) with BSMTTP i  
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id 1368; Tue, 23 Jul 91 14:32:13 SET  
Resent-Date: Tue, 23 Jul 91 14:31:45 SET  
Resent-From: chakravarti <VUAGNAT%CGEUGE11@pucc.PRINCETON.EDU>  
Resent-To: neil sloane <njas@alice.att.com>  
Received: from CGEUGE11.BITNET by CGEUGE11.BITNET (Mailer R2.07) with BSMTTP id  
1303; Tue, 23 Jul 91 09:40:05 SET  
Date: Tue, 23 Jul 91 09:40:03 SET  
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To: VUAGNAT@CGEUGE11  
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Status: 0

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Batch SMTP transaction log follows:

220 CGEUGE11.BITNET Columbia MAILER R2.07 BSMTTP service ready.  
050 HELO CGEUGE11  
250 CGEUGE11.BITNET Hello CGEUGE11

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