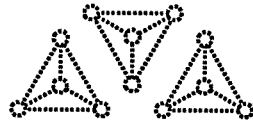


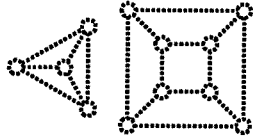
# 6 The 3-regular Graphs on 12 Vertices

(Numbering 1-85 agrees with Bussemaker et al, *Computer investigation of cubic graphs*. Technological University Eindhoven, Netherlands, 1976)

i  
 $3K_4$   
 $S_3(S_4)$  ord 82,944



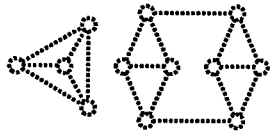
ii  
 $K_4$  U 3-cube  
 $S_4 \times S_4 \times Z_2$  ord 1152



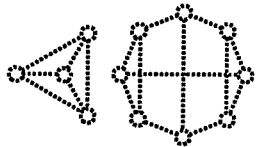
iii  
 $K_4$  U 4-Möbius-ladder  
 $S_4 \times D_8$  ord 384



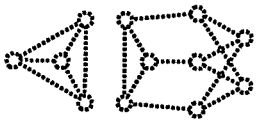
iv  
 $S_4 \times D_4 \times Z_2$  ord 384



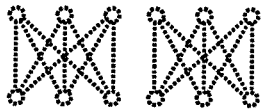
v  
 $S_4 \times Z_2 \times Z_2$  ord 96



vi  
 $S_4 \times S_3 \times Z_2$  ord 288



vii  
 $2K_{3,3}$   
 $Z_2(Z_2(S_3))$  ord 10,368



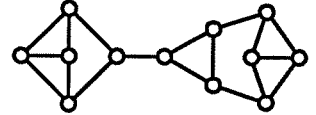
viii  
 $K_{3,3}$  U 3-prism  
 $Z_2(S_3) \times S_3 \times Z_2$  ord 864



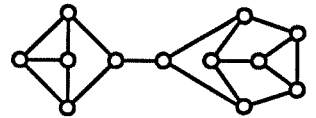
ix  
 3-prism U 3-prism  
 $Z_2(D_6)$  ord 288



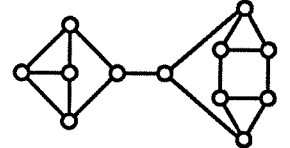
1  
 $g:f = 3:5$ , P, non-H  
 $Z_2 \times Z_2 \times Z_2 \times Z_2$  ord 16



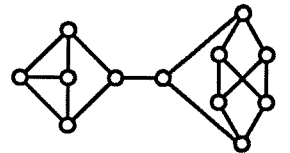
2  
 $g:f = 3:3$ , P, non-H  
 $Z_2 \times Z_2 \times Z_2$  ord 8



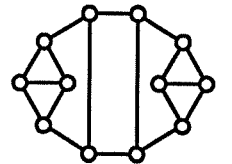
3  
 $g:f = 3:4$ , P, non-H  
 $Z_2 \times Z_2 \times Z_2 \times Z_2$  ord 16



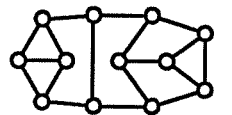
4  
 $g:f = 3:2$ , non-H  
 $D_4 \times Z_2 \times Z_2$  ord 32



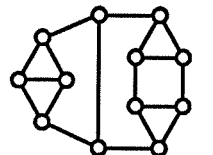
5  
 $g:f = 3:4$ , P  
 $D_4 \times Z_2$  ord 16



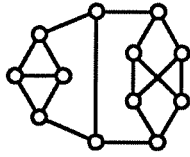
6  
 $g:f = 3:3$ , P  
 $Z_2 \times Z_2$  ord 4



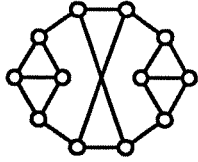
7  
 $g:f = 3:4$ , P  
 $Z_2 \times Z_2 \times Z_2$  ord 8



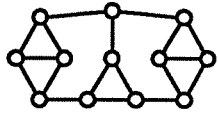
**8**  
 $g:f = 3:2$   
 $D_4 \times Z_2$  ord 16



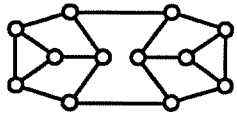
**9**  
 $g:f = 3:4, P$   
 $Z_2(Z_2 \times Z_2)$  ord 32



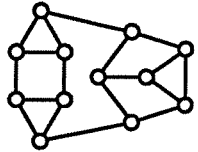
**10**  
 $g:f = 3:5, P$   
 $D_4$  ord 8



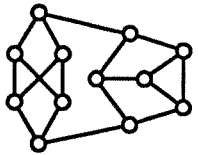
**11**  
 $g:f = 3:2, P$   
 $Z_2 \times Z_2$  ord 4



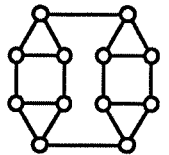
**12**  
 $g:f = 3:3, P$   
 $Z_2 \times Z_2$  ord 4



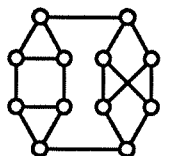
**13**  
 $g:f = 3:1$   
 $D_4$  ord 8



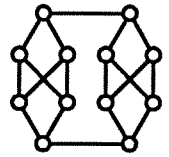
**14**  
 $g:f = 3:4, P$   
 $D_4 \times Z_2$  ord 16



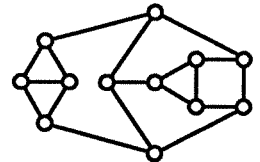
**15**  
 $g:f = 3:2$   
 $D_4 \times Z_2$  ord 16



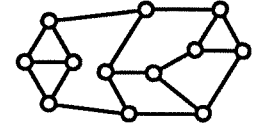
**16**  
 $g:f = 4:10, B$   
(ord 64)



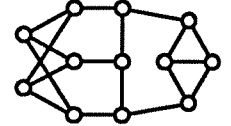
**17**  
 $g:f = 3:3, P$   
 $Z_2 \times Z_2$  ord 4



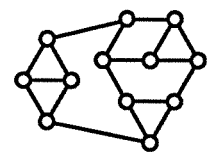
**18**  
 $g:f = 3:3, P$   
 $Z_2$



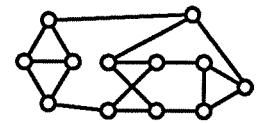
**19**  
 $g:f = 3:2$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



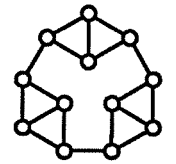
**20**  
 $g:f = 3:4, P$   
 $Z_2$



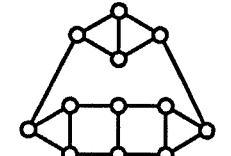
**21**  
 $g:f = 3:3$   
 $Z_2 \times Z_2$  ord 4



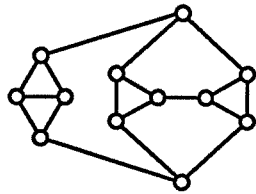
**22**  
 $g:f = 3:6, P$   
 $S_3(Z_2)$  ord 48



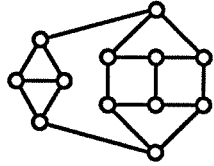
**23**  
 $g:f = 3:4, P$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



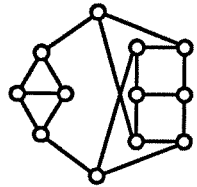
**24**  
 $g:f = 3:4$ , P  
 $Z_2 \times Z_2 \times Z_2$  ord 8



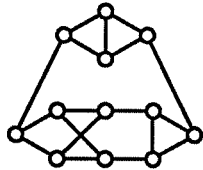
**25**  
 $g:f = 3:2$ , P  
 $Z_2 \times Z_2 \times Z_2$  ord 8



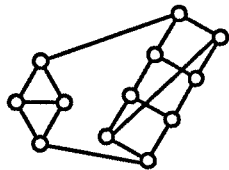
**26**  
 $g:f = 3:2$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



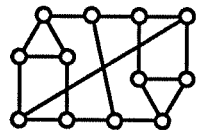
**27**  
 $g:f = 3:3$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



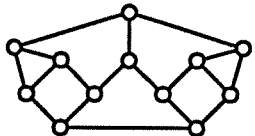
**28**  
 $g:f = 3:2$   
 $Z_2 \times Z_2$  ord 4



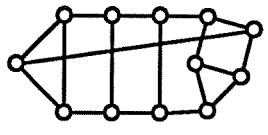
**29**  
 $g:f = 3:2$ , P  
 $Z_2$



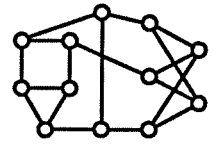
**30**  
 $g:f = 3:2$ , P  
 $Z_2$



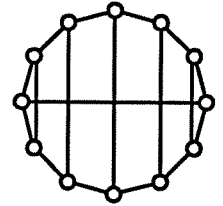
**31**  
 $g:f = 3:2$ , P  
*i*



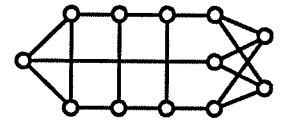
**32**  
 $g:f = 3:1$   
 $Z_2$



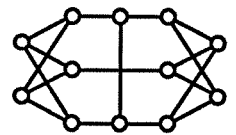
**33**  
 $g:f = 3:2$ , P  
 $Z_2 \times Z_2$  ord 4



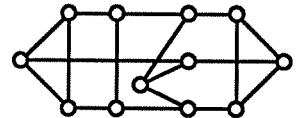
**34**  
 $g:f = 3:1$   
 $Z_2 \times Z_2$  ord 4



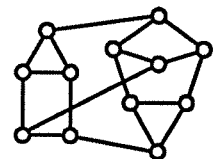
**35**  
 $g:f = 4:6$   
 $D_4 \times Z_2$  ord 16



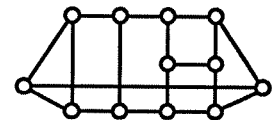
**36**  
 $g:f = 3:2$   
 $Z_2$



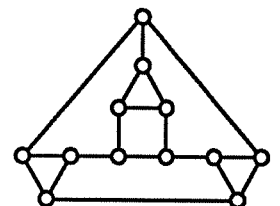
**37**  
 $g:f = 3:2$   
 $Z_2$



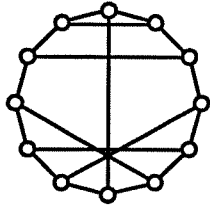
**38**  
 $g:f = 3:1$ , P  
 $Z_2$



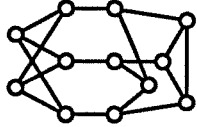
**39**  
 $g:f = 3:3$ , P  
 $Z_2$



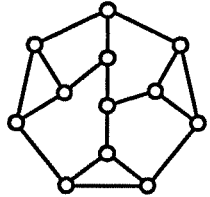
40  
 $g:f = 3:1$   
 $Z_2$



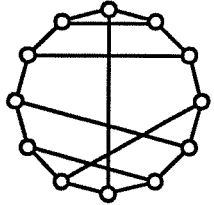
41  
 $g:f = 3:1$   
 $S_3 \times Z_2$  ord 12



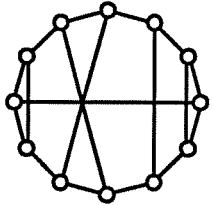
42  
 $g:f = 3:3, P$   
 $i$



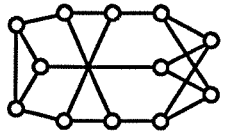
43  
 $g:f = 3:1$   
 $i$



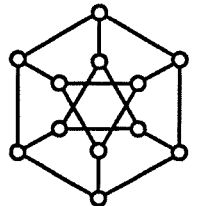
44  
 $g:f = 3:2$   
 $Z_2 \times Z_2$  ord 4



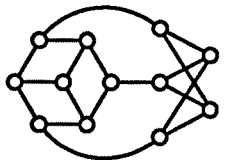
45  
 $g:f = 3:1$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



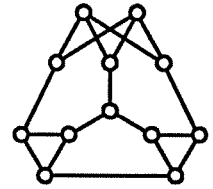
46 antipodally bitruncated cube  
 $g:f = 3:2, P$   
 $D_6 = S_3 \times Z_2$  ord 12



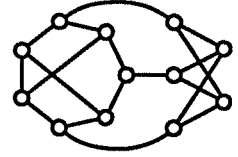
47  
 $g:f = 4:6, B$   
 $S_3 \times Z_2$  ord 12



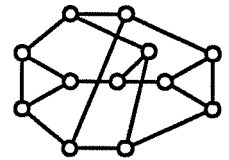
48  
 $g:f = 3:2$   
 $Z_2 \times Z_2$  ord 4



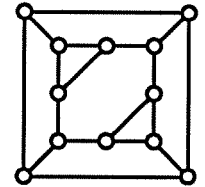
49  
 $g:f = 4:5$   
 $Z_2 \times Z_2$  ord 4



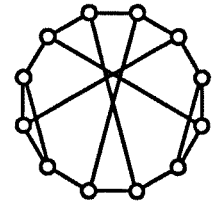
50  
 $g:f = 3:2$   
 $Z_2$



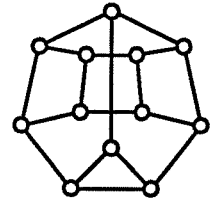
51 trans-bitruncated cube  
 $g:f = 3:2, P$   
 $Z_2 \times Z_2$  ord 4



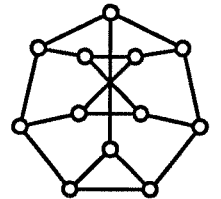
52  
 $g:f = 3:2$   
 $Z_2$



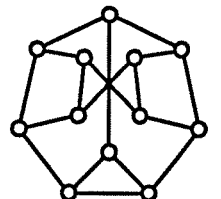
53  
 $g:f = 3:1, P$   
 $Z_2$



54  
 $g:f = 3:1$   
 $Z_2$

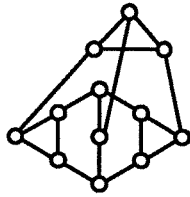


55  
 $g:f = 3:1$   
 $Z_2$



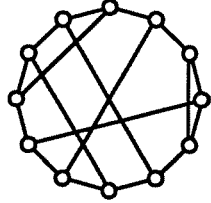
56

$g:f = 3:3$   
 $Z_2 \times Z_2$  ord 4



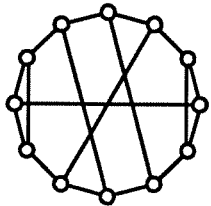
57

$g:f = 3:1$   
 $i$



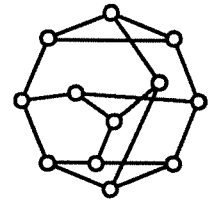
58

$g:f = 3:2$   
 $Z_2$



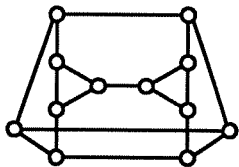
59

$g:f = 3:1$   
 $Z_2$



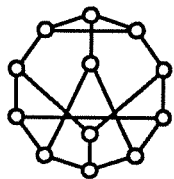
60

cis-bitruncated cube  
 $g:f = 3:2, P$   
 $Z_2 \times Z_2$  ord 4



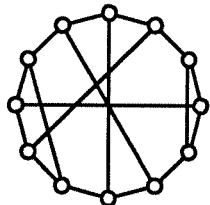
61

$g:f = 3:1$   
 $Z_2$



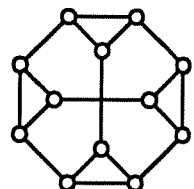
62

$g:f = 3:1$   
 $i$



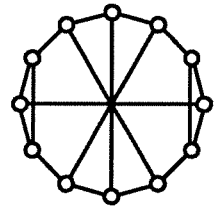
63

truncated tetrahedron  
 $g:f = 3:4, P T$   
 $S_4$  ord 24



64

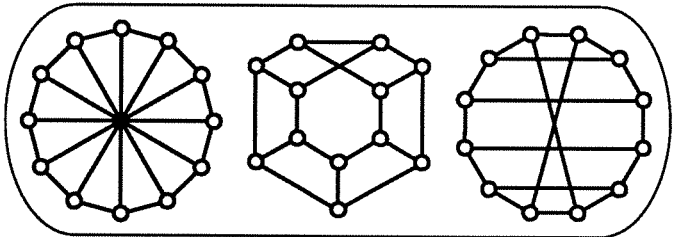
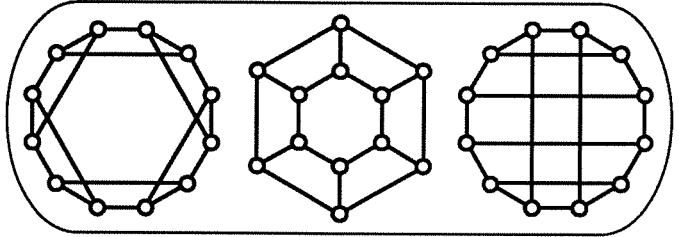
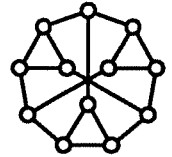
$g:f = 3:2$   
 $Z_2 \times Z_2$  ord 4



66 6-prism  
 $g:f = 4:6, P B T$   
 $D_6 \times Z_2$  ord 24

65

$g:f = 3:3$   
 $S_3 \times S_3$  ord 36

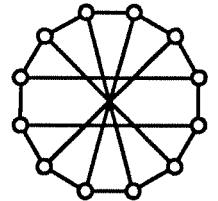


67

6-Möbius-ladder  
 $g:f = 4:6, T$   
 $D_{12}$  ord 24

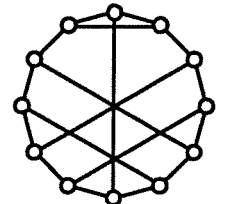
68

$g:f = 4:4$   
 $Z_2 \times Z_2$  ord 4



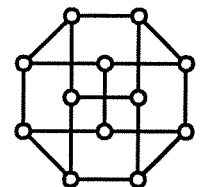
69

$g:f = 3:1$   
 $Z_2 \times Z_2$  ord 4



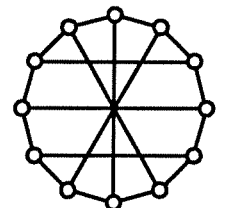
70

$g:f = 4:4, P$   
 $D_4$  ord 8

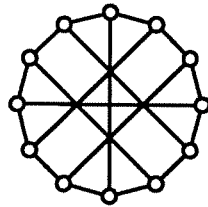


71

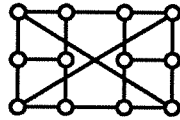
$g:f = 4:4$   
 $Z_2 \times Z_2$  ord 4



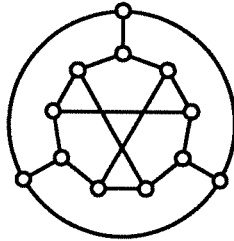
**72**  
 $g:f = 4:2$   
 $D_4 \times Z_2$  ord 16



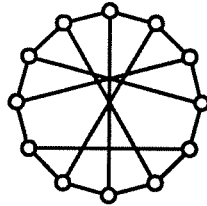
**73**  
 $g:f = 4:4$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



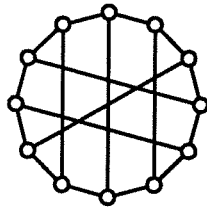
**74** Tietze graph  
 $g:f = 3:1$ , non-H  
 $S_3 \times Z_2$  ord 12



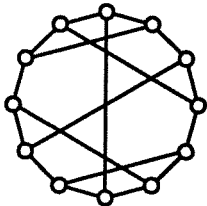
**75**  
 $g:f = 4:3$   
 $Z_2$



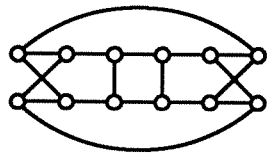
**76**  
 $g:f = 4:3$   
 $Z_2$



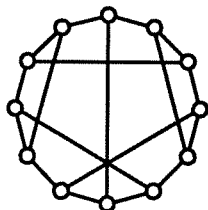
**77**  
 $g:f = 4:2$   
 $Z_2$



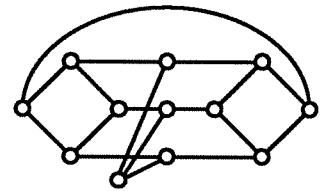
**78**  
 $g:f = 4:3$   
 $Z_2 \times Z_2 \times Z_2$  ord 8



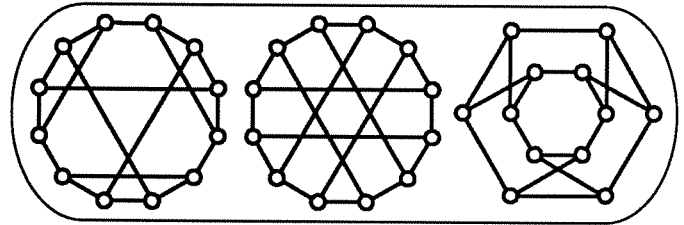
**79**  
 $g:f = 4:2$   
 $Z_2$



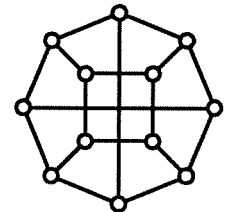
**80**  
 $g:f = 4:2$   
 $Z_2 \times Z_2$  ord 4



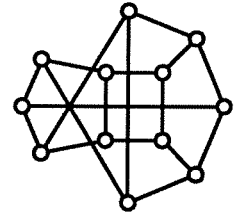
**81** Franklin graph  
 $g:f = 4:3$ , B T  
 $S_3(Z_2)$  ord 48



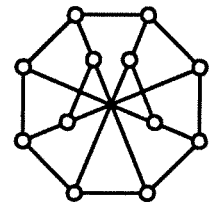
**82**  
 $g:f = 4:1$   
 $D_4$  ord 8



**83**  
 $g:f = 4:1$   
 $Z_2 \times Z_2$  ord 4



**84**  
 $g:f = 5:8$   
 $D_8$  ord 16



**85**  
 $g:f = 5:9$   
 $D_9$  ord 18

