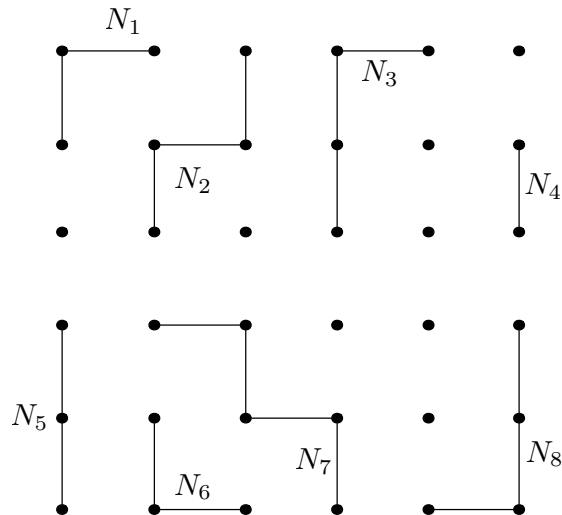
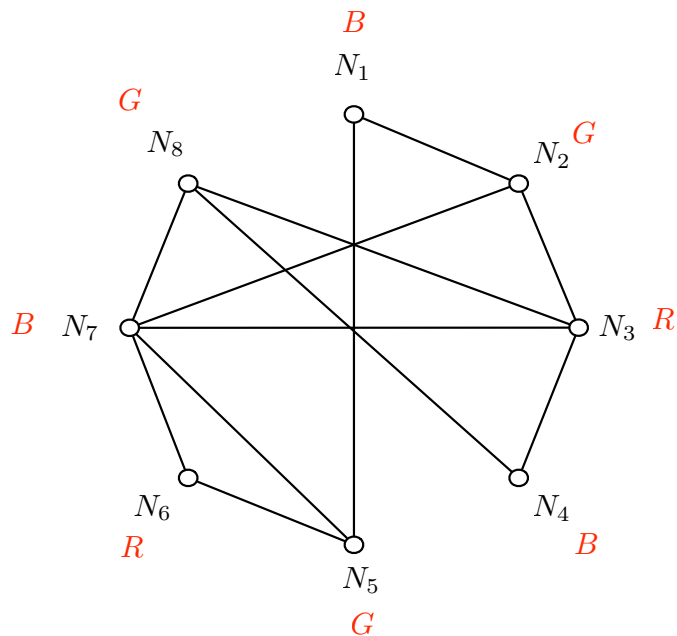


► **Review Exercise 13-16**

Draw the line-of-sight graph associated with the net pattern shown below. Determine  $\chi(G)$  and find a corresponding partition of the nets.



**Solution.** The line-of-sight graph  $G$  will have chromatic number 3. To see why, note that  $N_3, N_7$  and  $N_8$  must be assigned different colors, say  $R, B, G$ , respectively. Then  $N_2$  and  $N_5$  can be colored  $G$ , and  $N_1$  and  $N_4$  can be colored  $B$ . Finally,  $N_6$  can be colored  $R$ . The partition of nets is  $\{N_1, N_4, N_7\}, \{N_2, N_5, N_8\}, \{N_3, N_6\}$ .



□