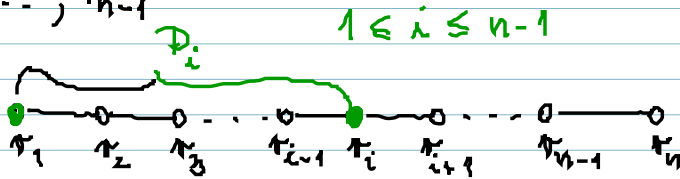
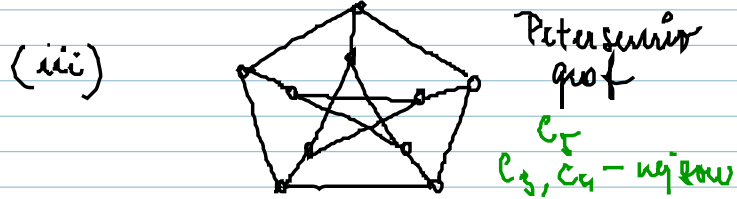
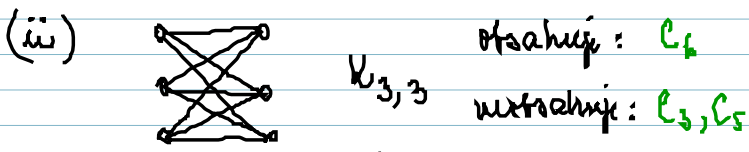
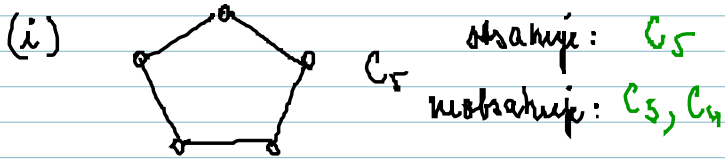


a) UVAŽTE, ŽE POKUD GRAF OBSAHUJE
 PODGRAF P_n , OBSAHUJE TAKÉ PODGRIFY P_1, P_2, \dots
 \dots, P_{n-1}

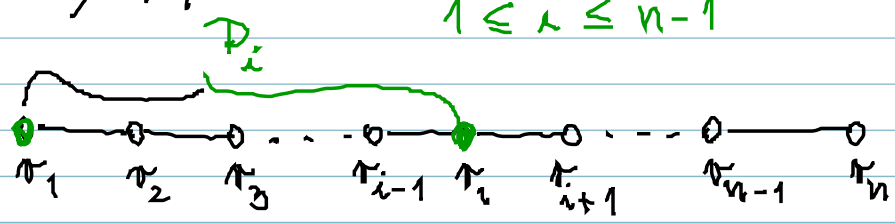


b) UVAŽTE, ŽE POKUD GRAF OBSAHUJE
 PODGRAF C_n **NE MŮŽE** OBSAHOVAT CYKLY
 C_3, C_4, \dots, C_{n-1} PRO $n \geq 4$.

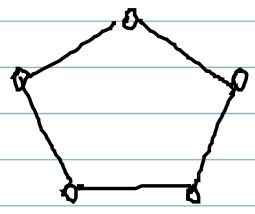


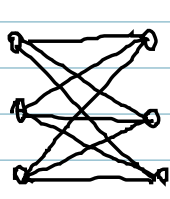
2) UVAŽTE, ŽE POKUD GRAF OBSAHUJE
 PODGRAF P_n , obsahuje také podgrafy P_1, P_2, \dots
 \dots, P_{n-1}

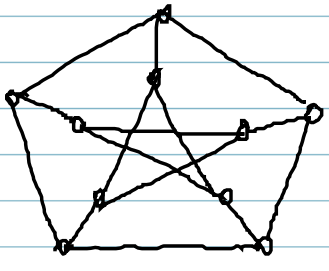
$$1 \leq i \leq n-1$$



b) Uvažte, že pokud graf obsahuje
 podgraf C_n , NEMUSÍ obsahovat cykly
 C_3, C_4, \dots, C_{n-1} pro $n \geq 4$.

(i)  C_5 obsahuje: C_5
 neobsahuje: C_3, C_4

(ii)  $K_{3,3}$ obsahuje: C_6
 neobsahuje: C_3, C_5

(iii)  Petersenův
 graf
 C_5
 C_3, C_4 - nejsou