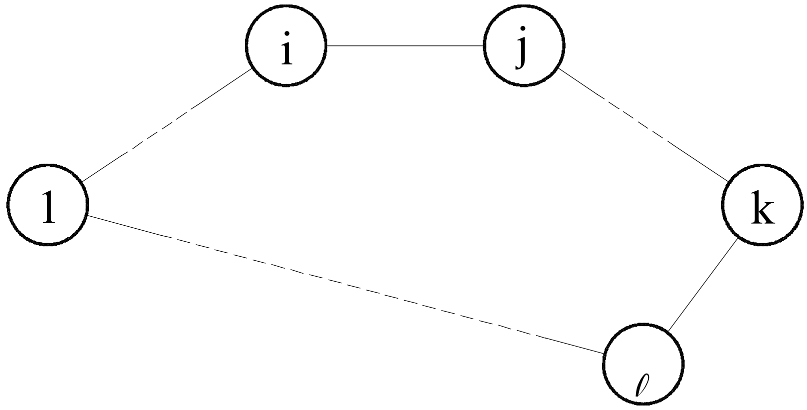
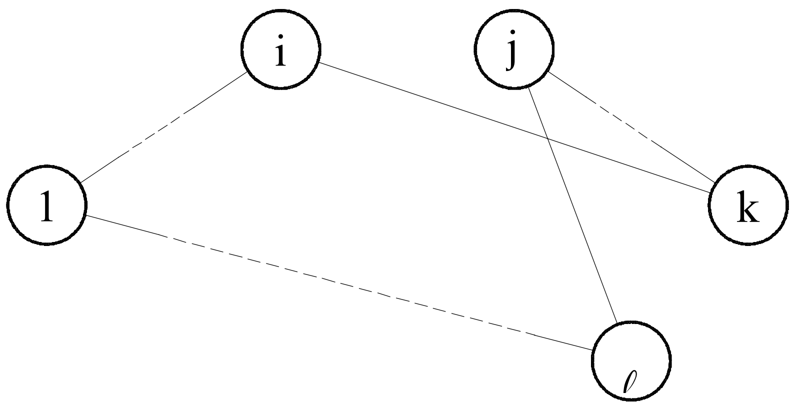
$N_2(t)$: caso simétrico

Seja $t = (1, \ldots, i, j, \ldots, k, \ell, \ldots, 1)$



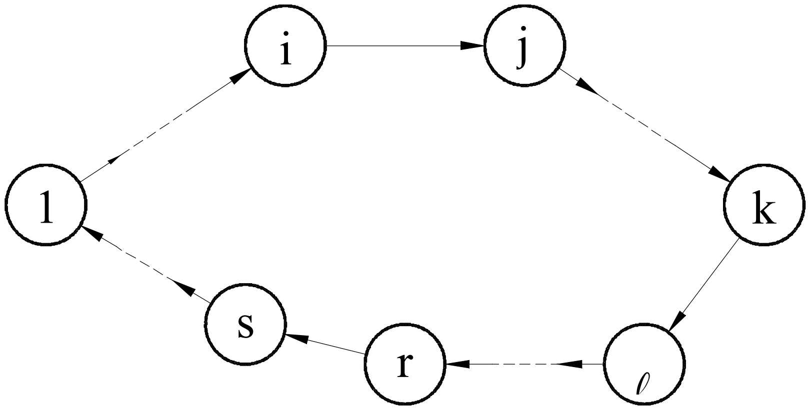
Retirando as arestas (i, j) e (k, ℓ) não adjacentes a única substituição possível é inserir (i, k) e (j, ℓ) gerando o tour $t' = (1, \ldots, i, k, \ldots, j, \ell, \ldots, 1)$



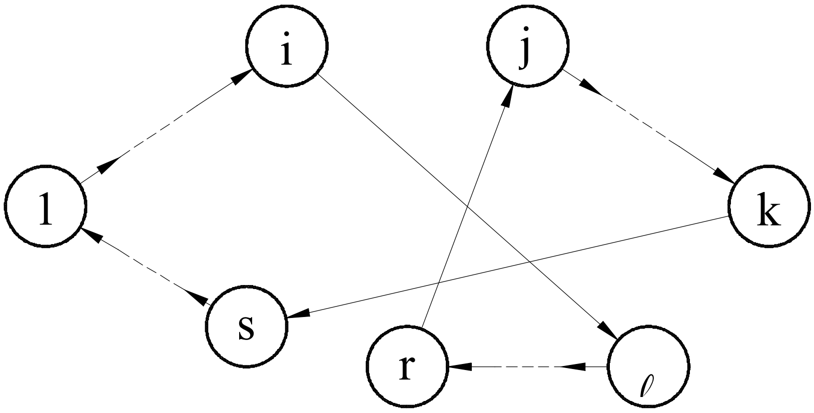
$$|N_2(t)| = \binom{n}{2} + 1 - n$$

$N_3(t)$: caso assimétrico

Seja $t = (1, \ldots, i, j, \ldots, k, \ell, \ldots, r, s, \ldots, 1)$



Retirando (i, j), (k, ℓ) e (r, s) as únicas substituições possíveis são (i, ℓ), (k, s) e (r, j)

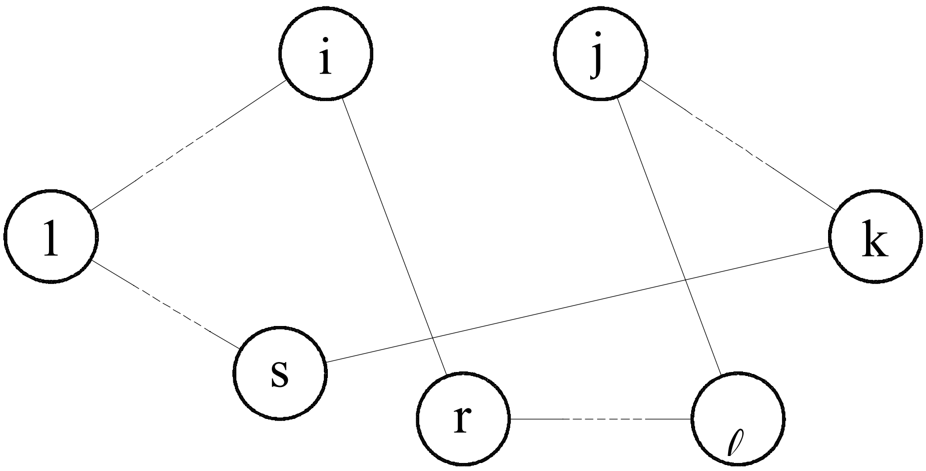


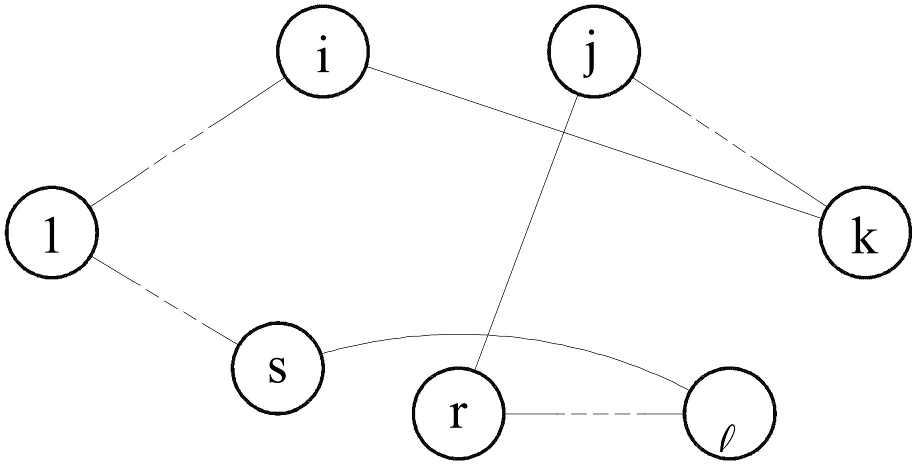
$$|N_3(t)| = \binom{n}{3} + 1$$

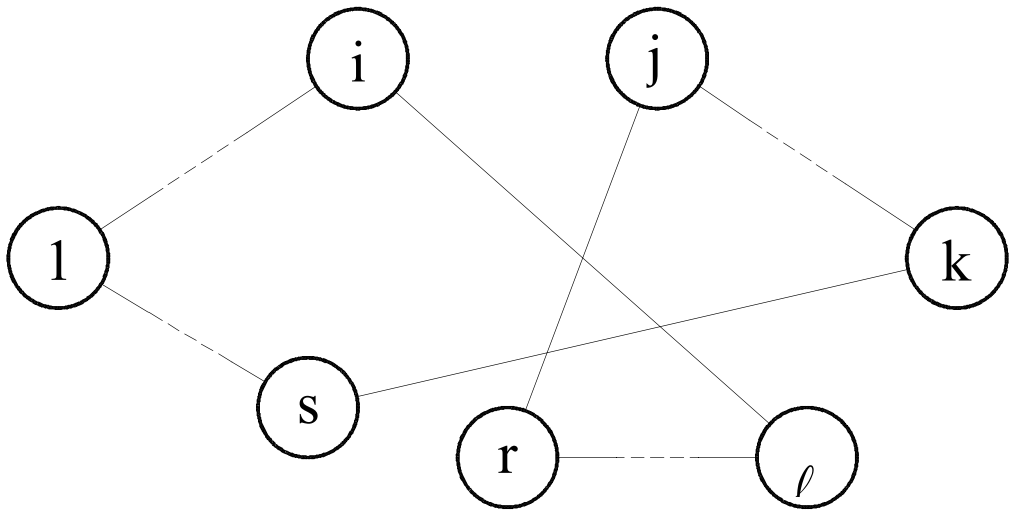
$N_3(t)$: caso simétrico

$t = (1, \ldots, i, j, \ldots, k, \ell, \ldots, r, s, \ldots, 1)$

Retirando (i, j), (k, ℓ) e (r, s) tem-se 4 tours possíveis



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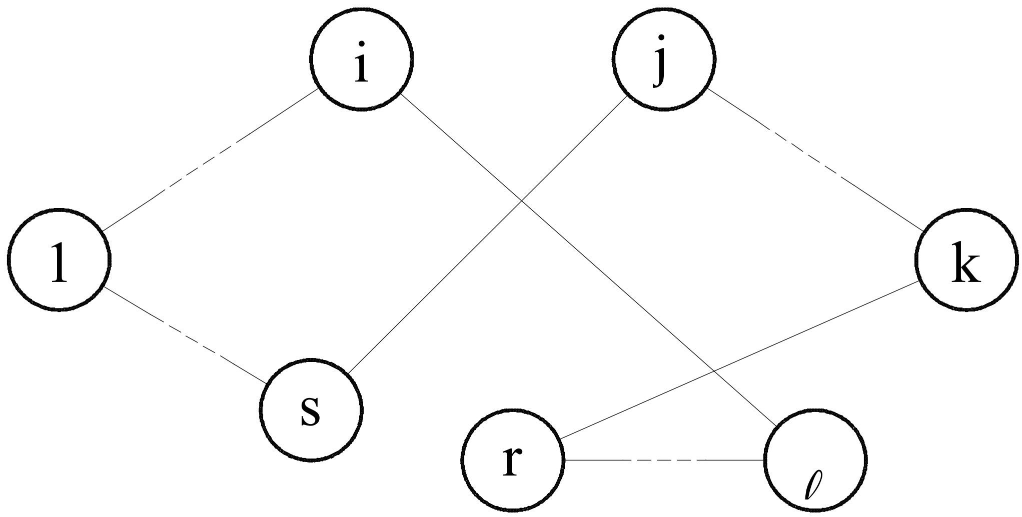
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