

$$r' = s$$

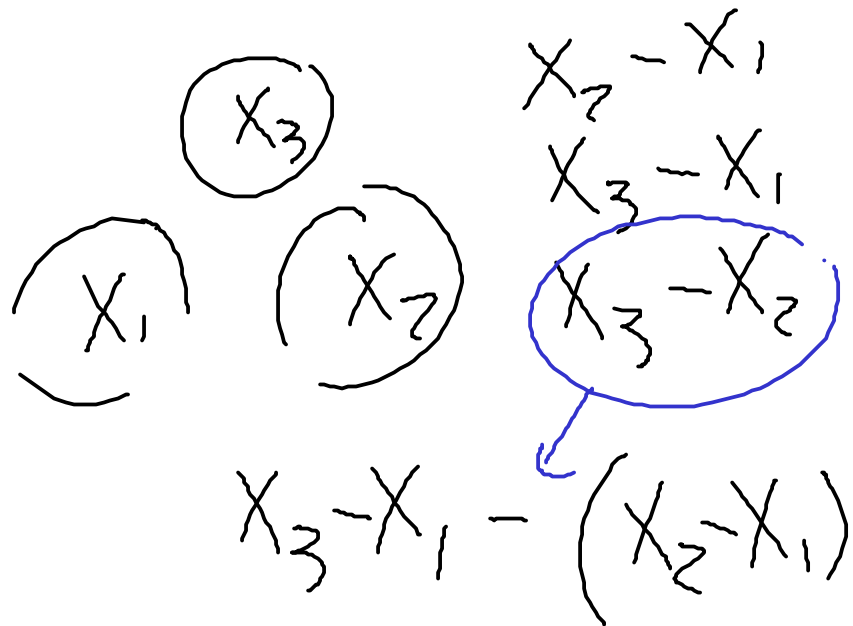
$$s' = r - 1$$

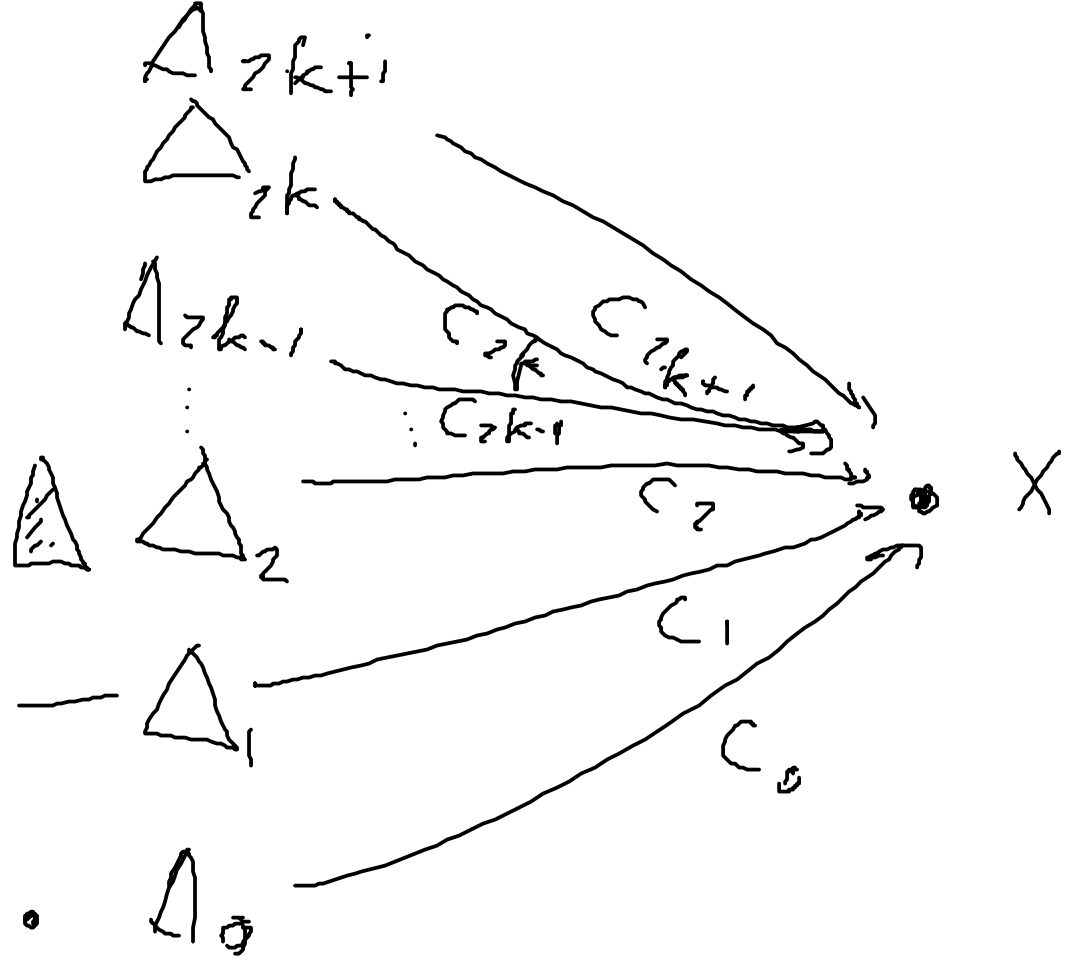
$$\sum_{r' \leq s'} (-1)^{r'+s'+1} F_{r'}^{k-1} F_{s'}^{k-2}$$

$$r' \leq s'$$

$$0 \xleftarrow{\partial_{-1}} \langle * \rangle \xleftarrow{\partial_0} \mathcal{S}(X)$$

$$0 \xleftarrow{|*|} \bar{x}$$





$$z_{2k+1} = S_{2k+1} = B_{2k+1} \partial C_{2k+1} = \underbrace{C_{2k} - C_{2k}}_{z_{2k+2}} = 0$$

$$z_{2k} = 0 = B_k \partial C_{2k} = \underbrace{C_{2k-1} - C_{2k-1} + \dots}_{z_{2k+1}} = C_{2k-1}$$

$$z_3 = S_3 = B_3 \partial C_3 = C_2 - C_2 + C_2 - C_2 = 0$$

$$z_2 = 0 = B_2 \partial C_2 = C_1 - C_1 + C_1 = C_1$$

$$z_1 = S_1 = B_1 \partial C_1 = C_0 - C_0 = 0$$