3. Prove that the language L is CFL by using properties of CFL (DO NOT draw PDA or CFG)

$$L3 = \{0^i 1^j 2^k : j = i+k\} \qquad 0^i 1^j 2^k$$

$$0^i 1^j 2^k$$

$$\{0^i 1^i\} \{1^k 2^k\}$$

L1 = $\{0^i 1^i\}$ is Context free

L2 = $\{1^k 2^k\}$ is Context free

L3 = L1 U L2

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