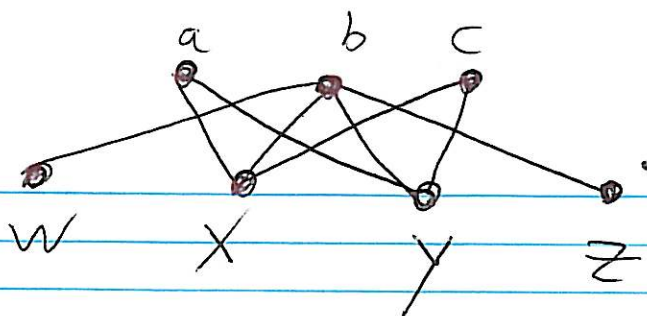


Let $P =$



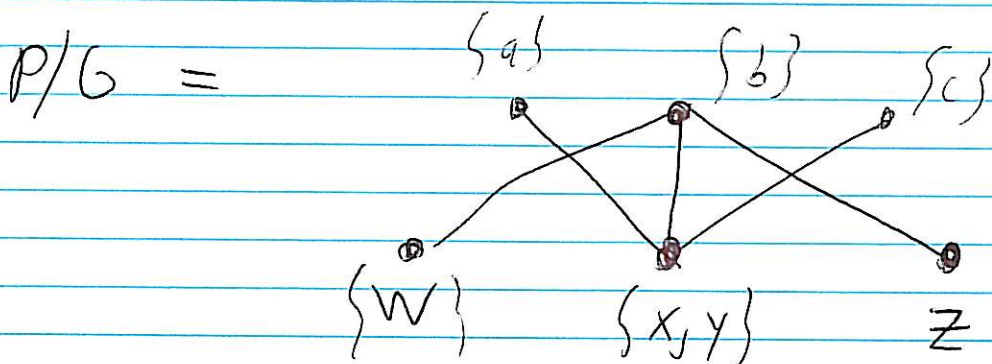
This poset is not Sperner since no antichain of size ≥ 4 can contain element b since b is only incomparable w/ $a \& c$.

Similarly, $\{a\} \cup S$ where S is a subset of $\{w, x, y, z\}$ cannot be an antichain of size ≥ 4 , since $\{a, w, z\}$ is the biggest such antichain.

Similarly $\{c\} \cup S$ looks the same.

There is another antichain $\{a, c, w, z\}$ but this also has size 4, the same as the size of the largest level.

Let $G = \mathbb{Z}_2$ switch $x \& y$.



which is not Sperner since

$\{a, w, c, z\}$ is an antichain of size larger than the largest level.