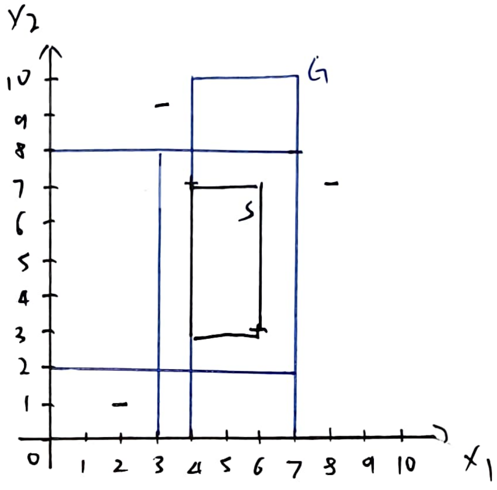
CS3244 Tutorial 4A

Zhuang Jianning
A0214561M
T13

BL 8a



all points satisfy

$G_0 = \{(0,10,0,10)\}$

$S_0 = \{(6,5,3,2)\}$ — no points satisfy

$G_1 = \{(0,10,0,10)\}$

$S_1 = \{(6,6,3,3)\}$

$S_2 = \{(6,6,3,3)\}$

$G_2 = \{(0,7,0,10),(0,10,0,6)\}$

$G_3 = \{(0,7,0,10)\}$

$S_3 = \{(4,6,3,7)\}$

$S_4 = \{(4,6,3,7)\}$

$G_4 = \{(3,7,0,10),\ (0,7,2,10)\}$

$S_5 = \{(4,6,3,7)\}$

$G_5 = \{(4,7,0,10),\ (3,7,0,8),\ (0,7,2,8)\}$

BL 8b

For any $h \in H$, if none of $g \in G$ is more general or equal to h
then h is not more general or equal to any $s \in S$

$$\forall h \in H \; (\forall g \in G \;\; g \not\geq_g h) \rightarrow (\forall s \in S \; h \not\geq_g s)$$

Disprove by counterexample.

1. Let $h \in H$ be the maximally general hypotheses in H

2. $\forall g \in G$, $h >_g g \rightarrow \forall g \in G$, $g \not\geq_g h$ (Assume $G \neq H$)

3. $\forall g \in G$, $g \in VS_{H,D}$ since g is consistent with D)

4. $\forall g \in G$, $\exists s \in S$ st $g \geq_g s$ (VSRT)

5. $\exists s \in S$ st $h \geq_g s$ (from 2 and 4)

6. since the hypothesis is true and conclusion is false,
the statement is false

7. $\exists h \in H$. st $(\forall g \in G \; g \not\geq_g h) \wedge (\exists s \in S \;\; h \geq_g s)$