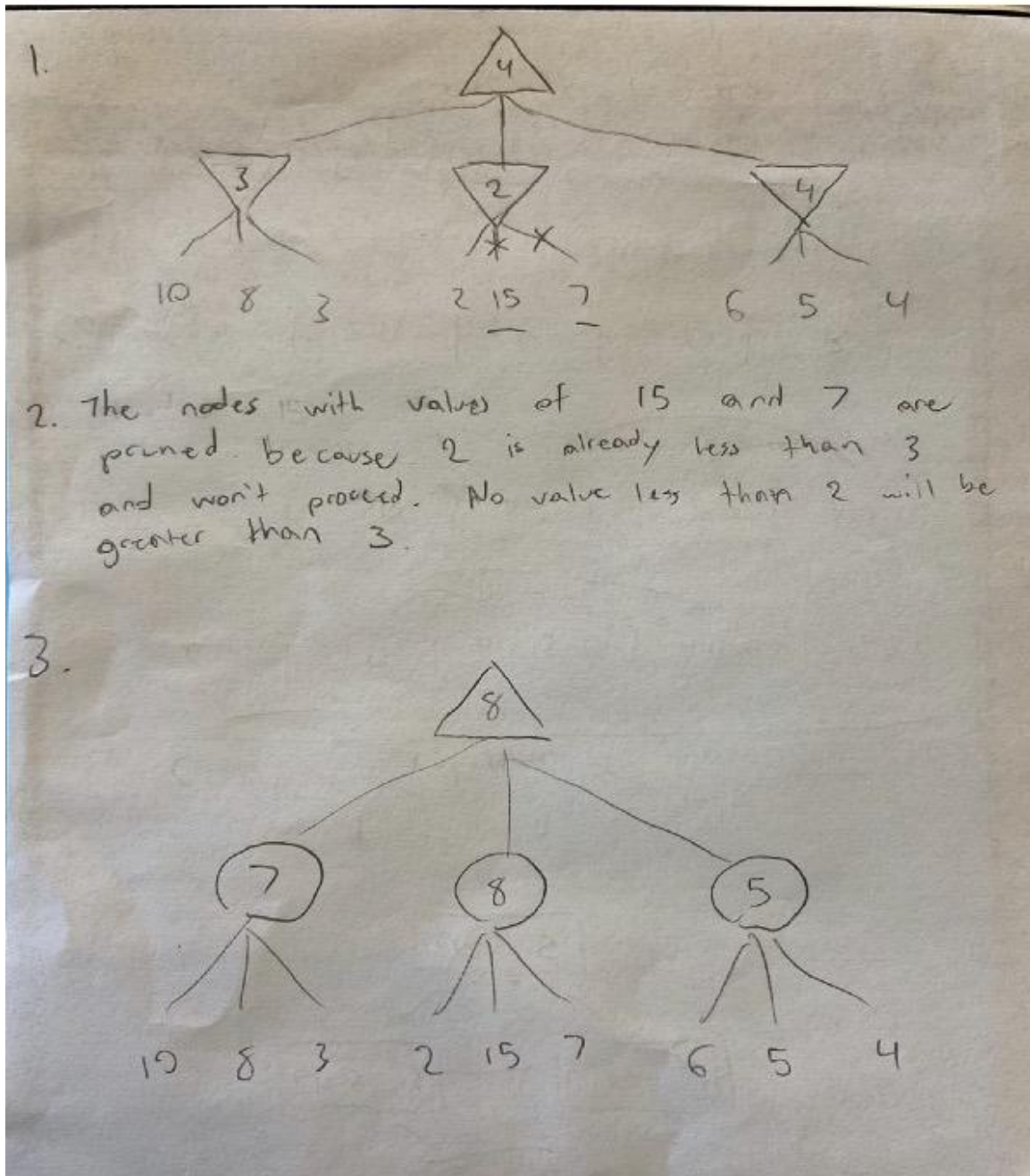


PART 2.

1. Games:



4. No nodes are pruned. Chance nodes take information from all the children nodes to calculate an average, so it is necessary to search all of them.

2. CSPs: Trapped Pacman

1)

Unary:

$X2 \neq P$

$X3 \neq P$

$X4 \neq P$

Binary:

$X3 \neq X2, X3 \neq X4 \mid (X2, X3) \neq (E, E) \text{ and } (X3, X4) \neq (E, E)$

$(X2, X4) = (E, E) \text{ or } X3 = E$

$X1 = P \mid X2 \neq P$

$X5 = P \mid X4 \neq P$

2)

| | | | |
|----|---|---|---|
| X1 | P | G | E |
| X2 | P | G | E |
| X3 | P | G | E |
| X4 | P | G | E |
| X5 | P | G | E |
| X6 | P | G | E |

3) The solver can assign 1 and 5 first. They have the most constraints and only have one possible domain which should be satisfied first.

4)

| | |
|--|--|
| Solution 1 : {X1 = P, X2 = G, X3 = E, X4 = G, X5 = P, X6 = G} | Solution 2 : {X1 = P, X2 = E, X3 = G, X4 = E, X5 = P, X6 = G} |
|--|--|