

[Course](#) > [Week 10](#) > [Practic...](#) > Q7: Ga...

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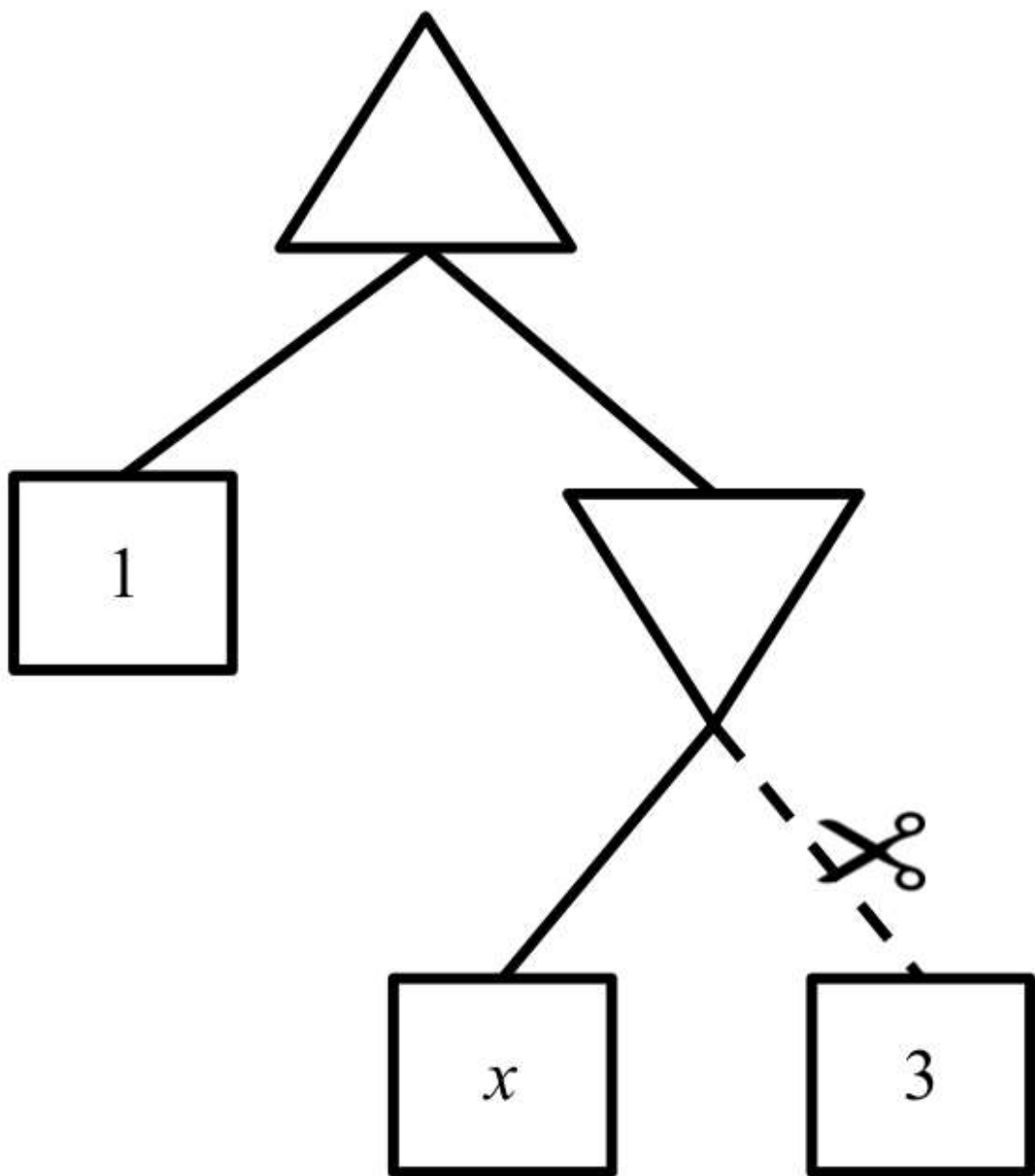
## Q7: Games: Alpha-Beta Pruning

### Problem 7: Games: Alpha-Beta Pruning

For each of the game-trees shown below, check for which values of  $x$  the dashed branch with the scissors will be pruned. If the pruning will not happen for any value of  $x$  check "None". If pruning will happen for all values of  $x$  check "All".

For all questions, choose the tightest bound possible. For example, if pruning occurs for  $x \geq 1$ , choose  $x \geq 1$  rather than  $x \geq 2$ . Also, for all questions, assume left-to-right traversal of the tree.

An example is shown below.

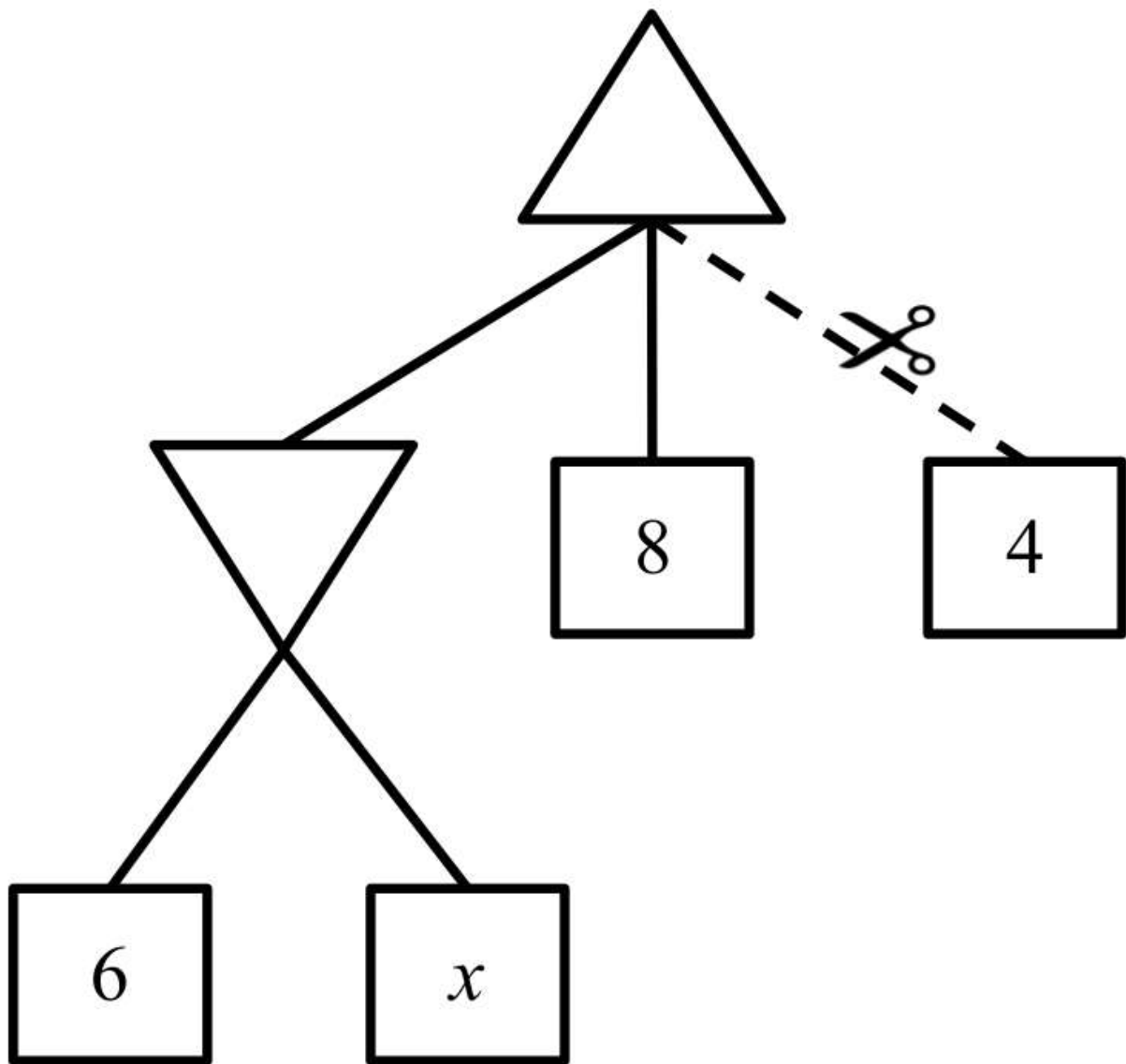


Example Tree. Answer:  $x \leq 1$ .

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## Part 1

0.0/2.0 points (ungraded)



☐ All

☒ None ✓

☐  $x \leq 4$

☐  $x \geq 4$

☐  $x \leq 6$

☐  $x \geq 6$

☐  $x \leq 8$

☐  $x \geq 8$

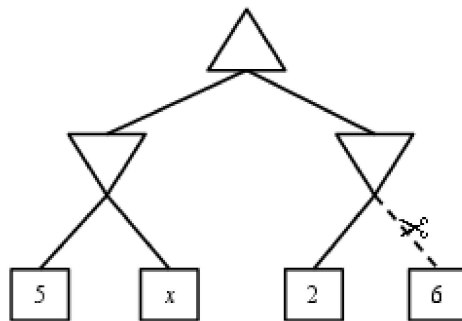
Submit

You have used 0 of 1 attempt

**i** Answers are displayed within the problem

## Part 2

0.0/2.0 points (ungraded)



☐ All

☐ None

☐  $x \leq 2$

☒  $x \geq 2$  ✓

☐  $x \leq 3$

☐  $x \geq 3$

☐  $x \leq 6$

☐  $x \geq 6$

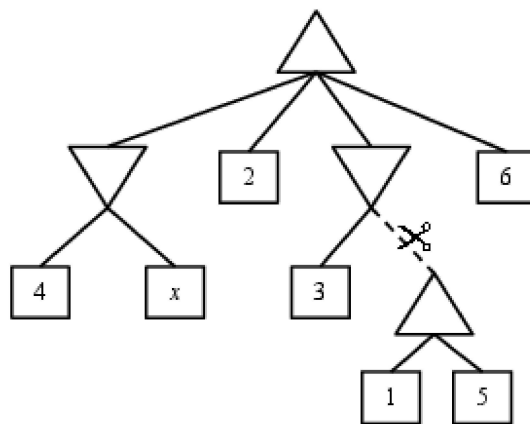
Submit

You have used 0 of 1 attempt

**i** Answers are displayed within the problem

### Part 3

0.0/2.0 points (ungraded)



☐ All

☐ None

☐  $x \leq 1$

☐  $x \geq 1$

☐  $x \leq 2$

☐  $x \geq 2$

☐  $x \leq 3$

☒  $x \geq 3$  ✓

☐  $x \leq 4$

☐  $x \geq 4$

☐  $x \leq 5$

☐  $x \geq 5$

☐  $x \leq 6$

☐  $x \geq 6$

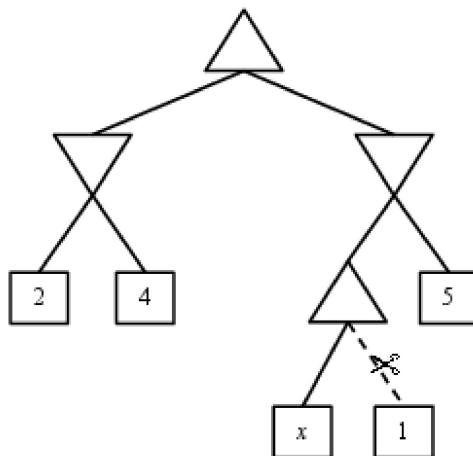
Submit

You have used 0 of 1 attempt

**i** Answers are displayed within the problem

## Part 4

0.0/2.0 points (ungraded)



☐ All

☒ None ✓

☐  $x \leq 1$

☐  $x \geq 1$

☐  $x \leq 2$

☐  $x \geq 2$

☐  $x \leq 4$

☐  $x \geq 4$

☐  $x \leq 5$

☐  $x \geq 5$

Submit

You have used 0 of 1 attempt

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**i** Answers are displayed within the problem