Quiz 7: Unifiers

● Graded

Student

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Total Points

5 / 5 pts

Question 1

(no title) **5** / 5 pts

1.1 **Most General Unifier** **2.5** / 2.5 pts

+ 0 pts Incorrect

✔ **+ 1 pt** Cannot be unified

✔ **+ 1.5 pts** Correct justification : presence of X in LHS and h(X, b) in RHS prevents unification

1.2 **Most General Unifier** **2.5** / 2.5 pts

✔ **+ 2.5 pts** Correct MGU: X->b, Z -> b justification not needed

+ 0 pts Incorrect

Q1
5 Points

Find the Most General Unifier for the following pairs of terms (trees) if it exists. If it does not exist, give the reason why not.

Q1.1 Most General Unifier
2.5 Points

$f(h(a,b),X)$ and $f(Y,h(X,b))$

X -> h(X,b) cannot be simplified because it itself contains X. So NO mgu exists.

Q1.2 Most General Unifier
2.5 Points

$f(h(a,X),h(X,b))$ and $f(h(a,b),h(Z,X))$

{X --> b, Z-->b}.