

%%% NAME: Sami Peng 501163935  
 %%% NAME: Feroz Noormohamed 500203723  
 %%% NAME: Mohammad Abdul Rahman 500961636

1.

a. match.

[X, Y | Z] and [a, b, c | [d, e, Y] ]

[X, Y | Z] and [a,b,c,d,e,Y]

X = a, Y = b, Z = [c,d,e,Y]

b. Does not Match.

[q, [A | [r, s] ], t] and [q, [r, [r, s] ] | B]

q = q, [A | [r, s]] = [r,[r,s] ] ? simplify [A | [r,s]] to [A, r, s] != [r, [r,s]] because they are not the same structure

c. Does not match.

[ [Cow | [cat, dog] ], bird, bug, chicken ] and [ [ant, [cat, dog] ] |

Horse]

[[Cow, cat, dog], bird, bug, chicken] and [ [ant, [cat, dog] ] | Horse ]

Cow = ant, cat \= [cat, dog] wrong structure

d. Match.

[1, A, 2 | [A, 3, 4] ] and [B | [2, C | [D | E] ] ]

[1, A, 2, A, 3, 4] and [B | [2, C, D | E] ]

[1, A, 2, A, 3, 4] and [B, 2, C, D | E]

B = 1, A = 2, C = 2, D = A = 2, E = [3,4]

e. Match

[A | [ A | [ [ A | [ [A] ] ] ] ] ] and [b | C]

lets simplify [A | [A | [ [A | [ [A] ] ] ] ] ] first:

[A, A | [ [A | [ [A] ] ] ] ], [A, A, [A | [ [A] ] ] ],

[A, A, [A, [A] ] ] and [b | C]

A = b, then

[A, [A, [A]]] = C ? Yes, it should match because C can match into anything

f. Does not match

[X | [Y | [ Z | [X] ] ] ] and [all, around, the, world, Y]

[X, Y | [Z | [ X] ] ], [X, Y, Z | [X] ], [X, Y ,Z, X]

[X,Y,Z,X] and [all, around, the ,world, Y]

X = all, Y = around, Z = the X = world, Y = ? Does not Match.

g. Match

[1, 2 | [ X | [ Y, Z | X] ] ] and [Q | [R, S, [], [ [Y] ] ] ]

[1, 2, X | [Y, Z | X] ] and [Q, R, S, [] | [ [Y] ] ]

[1, 2, X, Y, Z | X ] and [Q, R, S, [], [Y] ]

Q = 1, R = 2, X = S, Y = [], Z = [Y], X = []

h. Match

[Lions, [[and], tigers], [and], bears, oh | [[my]] ] and [[I, have], [[A], Bad], Feeling | [About | This] ]

Lets go through the first one: [Lions, [[and], tigers], [and], bears, oh | [[my]] ]

[Lions, [[and], tigers ], [and], bears, oh, [my] ]. Lets go through the second one : [[I, have], [[A], Bad], Feeling | [About | This] ]

[ [I, have], [[A], Bad], Feeling, About | This ]. Matching time!

[Lions, [[and], tigers ], [and], bears, oh, [my] ] and [ [I, have], [[A], Bad], Feeling, About | This]

Lions = [I, have], [[and], tigers] = [[A], Bad] ? A = and, Bad = tigers, Feeling = [and], About = bears, This = [oh, [my] ]

