Algorithm 1: Overall Similarity

Input: R, X, Y
Output: *overallSim*

$Sum_X \leftarrow 0$
$Sum_Y \leftarrow 0$
for $i \leftarrow 1$ **to** $|X|$ **do**
    $max_i \leftarrow 0$
    for $j \leftarrow 1$ **to** $|Y|$ **do**
        if $R[i,j] > max_i$ **then**
            $max_i \leftarrow R[i,j]$
        end
        $Sum_X \leftarrow Sum_X + max_i$
    end
end
for $j \leftarrow 1$ **to** $|Y|$ **do**
    $max_j \leftarrow 0$
    for $i \leftarrow 1$ **to** $|X|$ **do**
        if $R[i,j] > max_j$ **then**
            $max_j \leftarrow R[i,j]$
        end
        $Sum_Y \leftarrow Sum_Y + max_j$
    end
end
$overallSim \leftarrow (Sum_X + Sum_Y)/(2 * (|X| + |Y|))$