

```

-- Model solution for Tut06
--
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module Tut06
where

-- Given a nested list (ie, list of lists) of integers, yield a list that
-- contains the largest element of each of the sublists (and zero for empty
-- sublists)
--
-- Example: largest [[1,2,3], [2,3,1], [4,0], []] = [3,3,4,0]
--
largest :: [[Int]] -> [Int]
largest [] = []
largest (xs:xss) = largerThan 0 xs : largest xss
    where
        largerThan k [] = k
        largerThan k (x:xs)
            | x > k = largerThan x xs
            | otherwise = largerThan k xs

-- Delete all occurrences of the given value from a list
--
-- Example: delete 'x' "x-files sux" = "-files su"
--
delete :: Eq a => a -> [a] -> [a]
delete x ys = filter isNotX ys
    where
        isNotX y = x /= y

-- This version uses a higher-order function and a section; this is the
-- version that a Haskell expert would write
--
delete' :: Eq a => a -> [a] -> [a]
delete' x ys = filter (x /=) ys

-- Substitute elements in a list
--
-- Example: substitute 'e' 'i' "eigenvalue" = "iiginvalui"
--
substitute :: Eq a => a -> a -> [a] -> [a]
substitute x y zs = map subst zs
    where
        subst z | x == z = y
                | otherwise = z

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