UBCx: SPD3x Help s7oev ▼ Systematic Program Design - Part 3

Style Rules Discussion Problem Bank Glossary Design Recipes Language Progress Course > 8: Abstraction > Using Built In Abstract Functions > Questions 2-6 ⊞⊘ Ø 📀 Ø Previous Next > **Questions 2-6** ☐ Bookmark this page Question 2 1/1 point (graded) Suppose you want to design a function that consumes $(\mathtt{listof}\ \mathtt{Image})$ and rotates each image by 90 degrees. Which built-in abstract function(s) will you use to code the body? ☐ filter **▼** map ☐ build-list ☐ foldr andmap \square ormap Explanation (define (rotate-all loi)
(map rotate-90 loi)) (define (rotate-90 i)
(rotate 90 i)) Show 1 Answers are displayed within the problem Question 3 1/1 point (graded) Suppose you want to design a function that consumes (listof string) and combines each string in the list to create a single string. Which built-in abstract function(s) will you use to code the body? ☐ filter □ map ☐ build-list **▼** foldr andmap **Explanation** (define (combine-los los) (foldr string-append "" los)) Answers are displayed within the problem

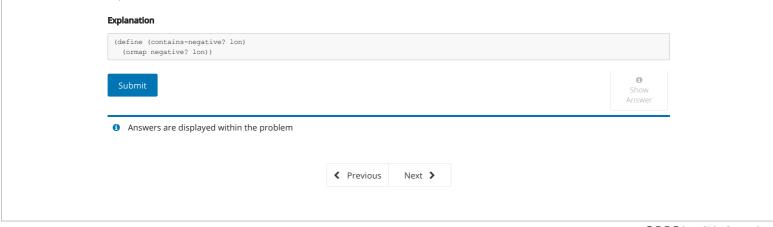
> Question 4 1/1 point (graded)

Suppose you want to design a function that consumes (listof String) produces a list of the short strings. Assume short here means less than 10 characters long. Which built-in abstract function(s) will you use to code the body? ▼ filter map ☐ build-list \Box foldr andmap ☐ ormap **Explanation** (define (short-los los)
(filter short? los)) (define (short? s)
(< (string-length s) 10))</pre> Show Answer 1 Answers are displayed within the problem Question 5 1/1 point (graded) Suppose you want to design a function that consumes a natural number, n, and produces a list of even numbers up to n. Which built-in abstract function(s) will you use to code the body? **▽** filter □ map build-list ☐ foldr andmap □ ormap Explanation (define (even-to n)
(filter even? (build-list n identity))) Show Answer • Answers are displayed within the problem Question 6 1/1 point (graded) $Suppose \ you \ want \ to \ design \ a \ function \ that \ consumes \ (\verb|listor Number|) \ and \ produces \ \verb|true| if the list \ contains \ a \ negative \ number.$ Which built-in abstract function(s) will you use to code the body? ☐ filter map ☐ build-list

□ foldr

andmap

▽ ormap



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