Warning: You may use built-in functions that do not appear on this Reference Sheet, provided they meet the requirements of the question, and were discussed on the slides or in the String documentation, and were allowed on assignments 1 – 5. Functions like reverse and sort are not permitted.

Selected String and Character Functions

(char=? c d) produces true if characters c and d are equal, false otherwise
(string=? s t) produces true if the strings s and t are equal, false otherwise
(char<? c1 c2) produces true if c1 comes before c2, otherwise false
(string<? s1 s2) produces true if s1 comes alphabetically before s2, otherwise false
(list->string L) produces a string from the characters in list L
(string->list s) produces a list of the characters in string s
(string-length s) produces the number of characters in string s
(string-append s1 s2 ... sn) produces string formed by concatenating s1 to s2 to s3 to ... sn
(string-ref s n) produces the character at position n in the string s
(substring s p1 p2) produces the string containing all the characters from position p1 to p2-1, inclusive, where the first character is at position 0 (error if p1 or p2 out of range)
(substring s p1) produces the string containing all characters from position p1 to end of s (error if p1 out of range)
(char? c) produces true if c is a character, false otherwise
(char-numeric? c) produces true if c is a numeric digit, false otherwise
(char-lowercase? c) produces true if c is a lowercase letter, false otherwise
(char-uppercase? c) produces true if c is an uppercase letter, false otherwise
(string? s) produces true if s is a string, false otherwise

Other Selected Functions

(equal? e1 e2) produces true if e1 and e2 are equal, false otherwise
(symbol=? s t) produces true if symbols s and t are equal, false otherwise
(expt b p) produces the value of b to the exponent p
(sqr x) produces the value x squared
(sqrt x) produces the square root of x
(quotient n m) produces the quotient when n is divided by m
(remainder n m) produces the remainder when n is divided by m
(floor n) produces the closest integer that is less than or equal to n
(ceiling n) produces the closest integer that is greater than or equal to n
(positive? x) produces true if x > 0, false otherwise
(zero? x) produces true if x is equal to 0, false otherwise
(empty? lst) produces true if lst is the empty list, false otherwise
(append l1 l2 ... ln) consumes two or more lists l1, l2, ..., ln, and produces a list of all the elements in l1, l2, ..., ln, in that order
(length lst) produces the number of elements in the list lst
(member? x lst) produces true if x is in lst, false otherwise