#lang racket

;; Defining filter

(define (my-filter f l)
  (if (empty? l)
      l
      (if (f (first l))
          (cons (first l) (my-filter f (rest l)))
          (my-filter f (rest l)))))

(my-filter string? (list 1 2 #t "cat"))

(define numbers (list 5 6 7 8))

(define (greater-than-5 lst)
  (filter (lambda (x) (> x 5)) numbers))

(greater-than-5 numbers)

(filter (lambda (x) null) numbers)

;; Exercise: titlecase

(define (all-titlecase lst)
  (filter (lambda (x) (equal? (string-titlecase x) x)) lst))

(all-titlecase (list "cat" "Cat" "CAT" "ALL Cats"))