

Question 7

Question 7

1 point possible (graded)

Consider the following data definition:

```
;; Television is one of:  
;; - "off"  
;; - Natural[1, 99]  
;; - "broken"  
;; interp. a tv is either off, set to a channel between 1 and 99, or broken  
#;  
(define (fn-for-television tv)  
  (cond [(and (string? tv)(string=? tv "off"))(...)]  
        [(and (number? tv)(<= 1 tv)(<= tv 99))(... tv)]  
        [(and (string? tv)(string=? tv "broken"))(...)]))
```

Select all simplifications that you could make to the template.

- ☐ remove (string? tv) from the first cond question
- ☐ remove (number? tv) from the second cond question
- ☐ remove (string=? tv "off") from the first cond question
- ☒ remove both (<= 1 tv) and (<= tv 99) from the second cond question ✓
- ☒ reduce the third cond question to else ✓

Explanation

The resulting simplified template will be

```
#;  
(define (fn-for-television tv)  
  (cond [(and (string? tv)(string=? tv "off"))(...)]  
        [(number? tv)(... tv)]  
        [else (...)]))
```

Submit

i Answers are displayed within the problem