

Do the following problems from [SHE]:

- Page 90, Exercises 2.4 #49, 50(a), 53.
- Page 101, Exercises 2.6 #28, 30.
- Page 532, Exercises 11.1 #27, 30, 31.

Additional Problems:

(A) Prove the following variant of Exercise 50(a):

Theorem. Let f be continuous from the right at c . If $f(c) > 0$, then there exists $\delta > 0$ such that $f(x) > 0$ for all $x \in [c, c + \delta)$.

(B) All three parts of Exercise 50 have versions that apply to limits from the right, and versions that apply to limits from the left. You proved one of them in Problem A above. *State* (but do not prove) the other five.