**Using the Document**

LimitSliders.tns: This calculator file provides a technology tool for investigating the limit of an arbitrary function as  approaches a specific value from the left and from the right. In a separate calculator problem, the user can investigate the limit of a function as  increases or decreases without bound, that is, as  or as . A short table of values for each type of limit is also automatically computed and displayed in a Lists and Spreadsheet page.

The default limits are

 (calculator problem 2)

and

 (calculator problem 3)

**Suggested Applications and Extensions**

Use Pages 2.1 and 2.2 to estimate the value of the limit, if it exists.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11.  where 

Use Pages 3.1 and 3.2 to estimate the value of the limit, if it exists.

1. 
2. 
3. 
4.  and 
5. 
6. 
7. 
8. 
9. 
10. 