

## Question 5

**Q:** Why do the maximum value of principal stress in vectors and the maximum value of maximum principal stress in contours not match?  
The same question for strain as well.

**A:** The discrepancies between the maximum value of principal stress in vectors and the maximum value of maximum principal stress in contours are mainly due to the difference in each evaluation point.

The maximum value of principal stress is based on the value at the center of gravity of an element, while the maximum value of maximum principal stress is based on the values at the nodes of the element. Therefore, especially when there are significant variations in stress in the element, there may be large discrepancies between these values.

Please refer to the help menu below for more information:  
*Home>Show Results>Calculating Field Values.*