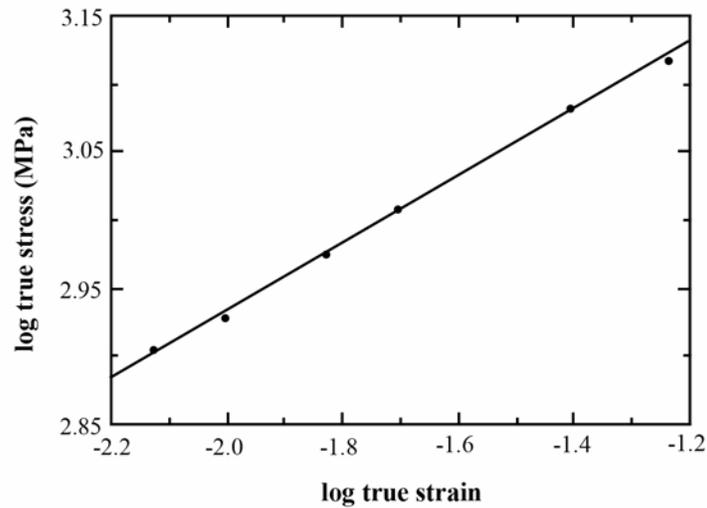


6.43 This problem calls for us to utilize the appropriate data from Problem 6.28 in order to determine the values of  $n$  and  $K$  for this material. From Equation 6.27 the slope and intercept of a  $\log \sigma_T$  versus  $\log \epsilon_T$  plot will yield  $n$  and  $\log K$ , respectively. However, Equation 6.19 is only valid in the region of plastic deformation to the point of necking; thus, only the 8th, 9th, 10th, 11th, 12th, and 13th data points may be utilized. The log-log plot with these data points is given below.



The slope yields a value of 0.246 for  $n$ , whereas the intercept gives a value of 3.424 for  $\log K$ , and thus  $K = 10^{3.424} = 2655$  MPa.