Curve Fitting and Prediction

An experiment is performed to define the relationship between applied stress and the time to fracture for a type of stainless steel. The data obtained is given:

stress, x, kg/mm^2	5	10	15	20	25	30	35	40
time, y, hours	40	30	25	40	18	20	22	15

Plot the data and then develop a best-fit equation to predict the fracture time for an applied stress of 20 kg/mm^2.

Hint: Try a model with all data points, and then try a model by treating point (20, 40) as an outlier and discarding it.