

Question 2

a) PRE PROCESSING IS UNDERSTANDING THE PROBLEM, SPECIFICATION AND WHAT THE OUTCOME NEEDS TO BE AND THE ACCURACY WE USE TO THINK OF PREPROCESSING PART OF FEA IS

S. I. M. P. L. E

SPLITTING INTO ELEMENTS - INTERPRET GEOMETRY MATERIAL INFORMATION PHYSICAL PROPERTIES LOADING EVALUATION OF RESULTS = POST PROCESSING

SO THE SIMPL CAN BE THOUGHT A PRE PROCESSING

SPLITTING THE COMPLEX PROBLEM INTO SMALL UNDERSTANDABLE ELEMENTS. THIS MEANS THAT MATHEMATICAL ASSUMPTIONS CAN BE MADE ON MORE SIMPLISTIC GEOMETRIC ELEMENTS. THE GEOMETRY OF THESE ELEMENTS ARE DETERMINED BY THE TYPE OF COMPONENT

INTERPRET GEOMETRY. UNDERSTANDING THE GEOMETRY TO SMALL DETAILS WHICH AT RUN TIME TO ANALYSIS BUT MAKE LITTLE STRUCTURAL DIFFERENCE. E.g IF MODELING STRESS ON AN ENGINE THE FINS ARE FOR HEAT DISSIPATION NOT STRUCTURAL THEREFORE DO NOT THE COMPLEXITY TO THE MODEL FOR STRESS.