

Q2
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The steps that should be taken prior to FEA is the approx S.M.P.E stands for

Split, this is the first step, this is where the geometry of the component is split into elements to create the nodes the nodes & elements allow the mathematical estimates to be carried out. The selection of density and element type is important at this step. 1.

Interpret, the geometry needs to be inputted & approximated, every complex geometries will extend the run time of the model. Material the material needs to be selected and its information inputted

Physical Property - the physical properties of the model need to be inputted such as element size thickness
Loading this is where the boundary conditions are inputted, these conditions will come from the initial brief.

Evaluate once the model has been solved the model/analysis must interpret the data, it is important to understand what has contributed to the output and how it can be altered. Also where the approximations are causing issues