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3 of 8

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M6X00420

Advanced Stress + FEA

## Question 2

Pre-Processing means <sup>Preparing</sup> ~~getting~~ the model before analysis can be taken  
a) SIMPLE could be used during the pre-processing stage. SIMPLE stands for Splitting - Split a complex problem in to smaller elements so assumptions can be made between elements

Interpret - To interpret the geometry. To obtain a satisfactory result in a reasonable time. i.e. if a small complex detail could add complexity to the analysis but not have a big effect on the outcome could be ignored.

Material - After product has been modeled + meshed material needs to be selected. This ~~also~~ would determine what solver is used.

Physical Property - these need to be added if 1D or 2D elements are used. Second moment of area, polar second moment of area could be <sup>imported</sup> ~~used~~ for 1D. For 2D thickness of elements need to be considered.

Loading - ~~In what direction~~ How the product is loaded. How is it constrained, where forces are applied, how much force

Evaluate - Once the model has been solved. The results need to be ~~analysed~~ analysed. Have any of the previous steps influenced the results. Is information given still accurate