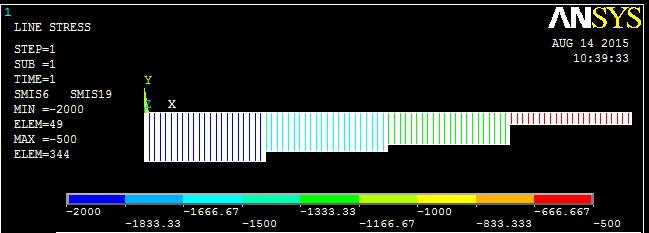
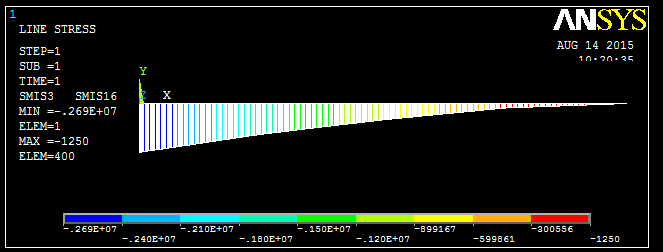
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|  | **Techno India NJR Institute of Technology**  **Bhamashah (RIICO) Industrial Area, Kaladwas, Udaipur**  **Department of Mechanical Engineering** |

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| **ANSYS Sheet Instructor: KapilDungarwal** | |
| **Problem:- (1)** | |
|  |  |

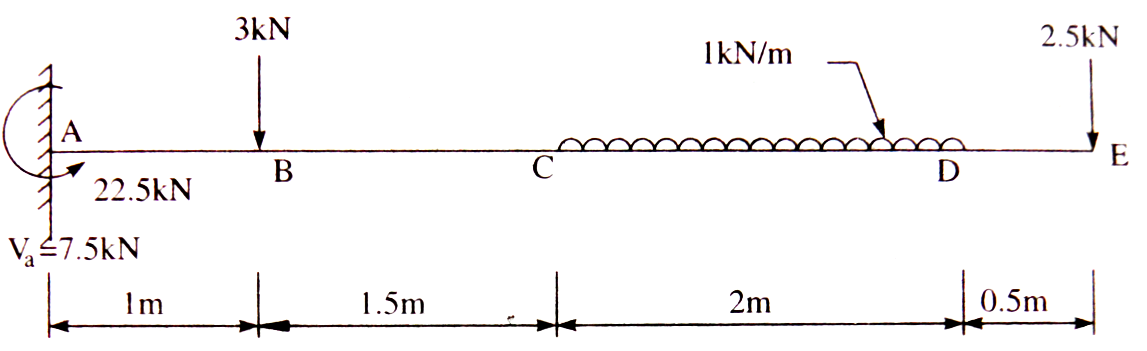
**Shear force Diagram:**



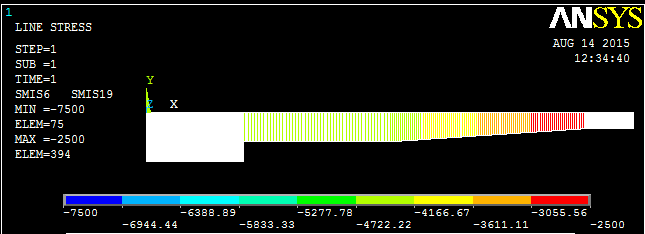
**Bending Moment Diagram:**



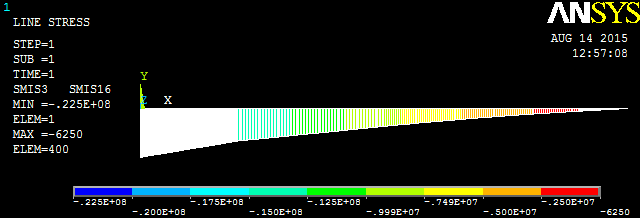
**Problem:- (2)**



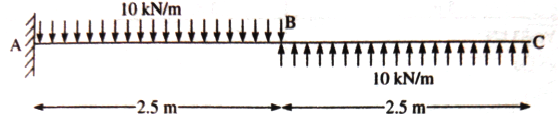
**Shear Force Diagram:**



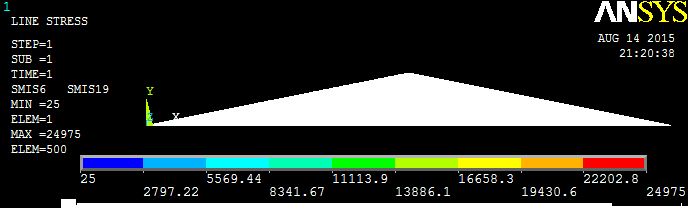
**Bending Moment Diagram:**



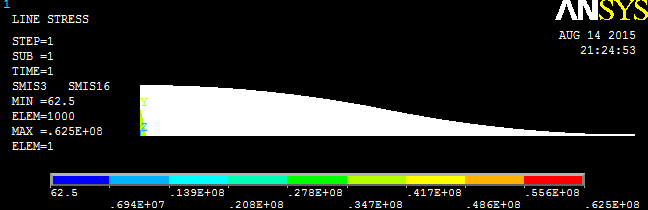
**Problem:- (3)**



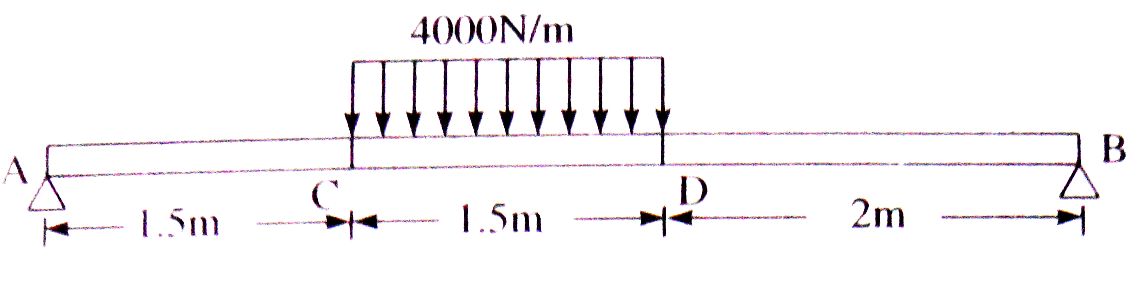
**Shear Force Diagram:**



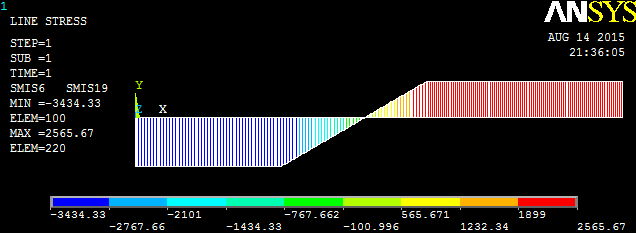
**Bending Moment Diagram:**



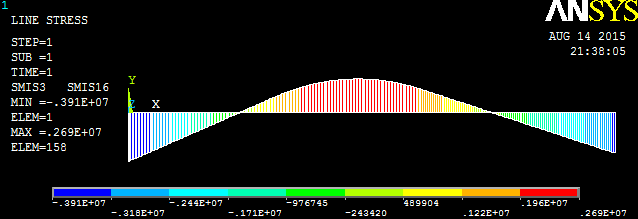
**Problem:- (4)**



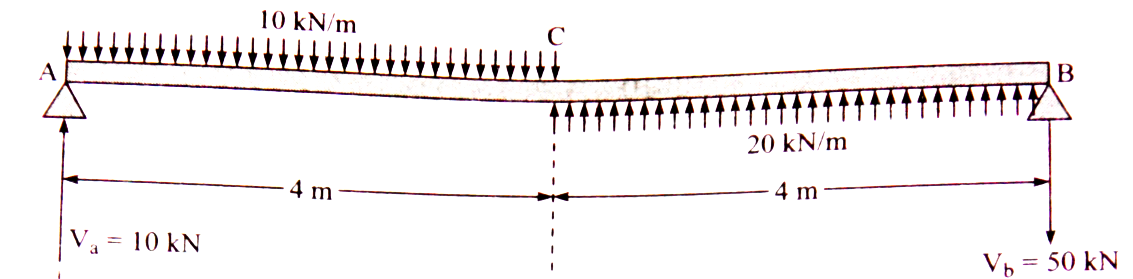
**Shear Force Diagram:**



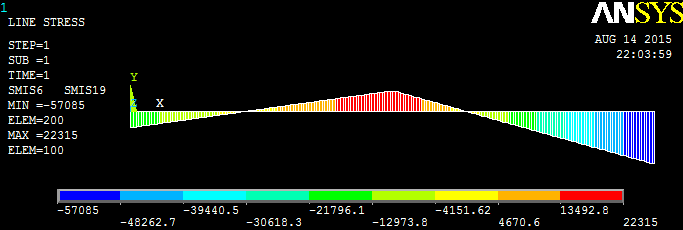
**Bending Moment Diagram:**



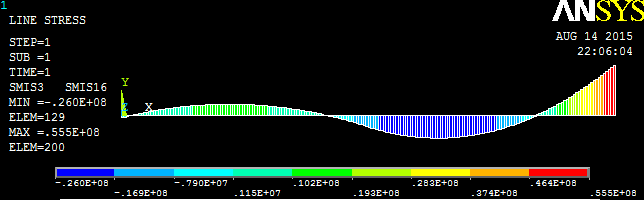
**Problem:- (5)**



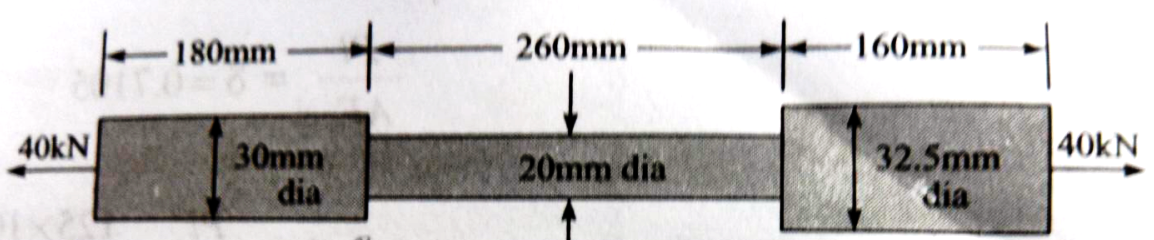
**Shear Force Diagram:**



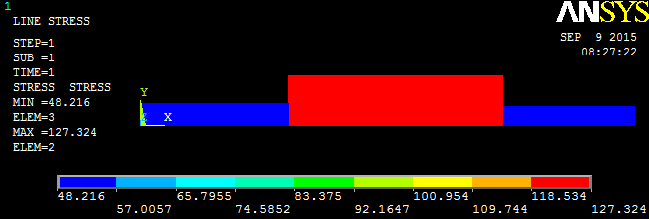
**Bending Moment Diagram:**



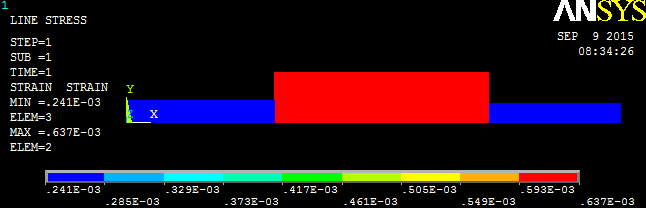
**Problem:- (6)** A bar consisting of three lengths. Find the stress in the three parts and the total extension of the bar for an axial pull of 40kN. Take



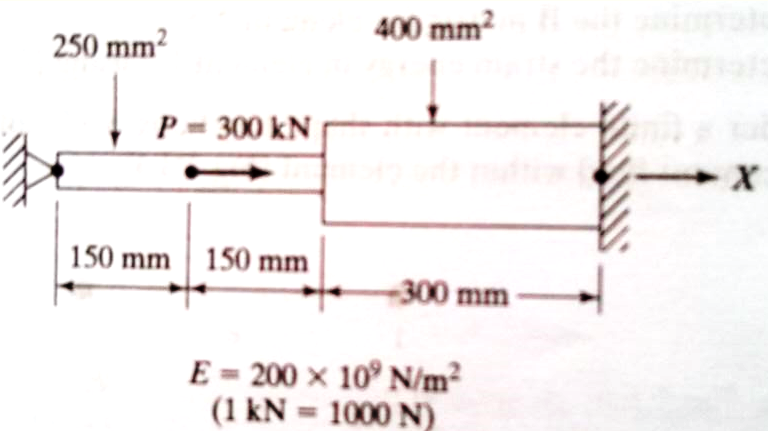
**Stress Diagram:**



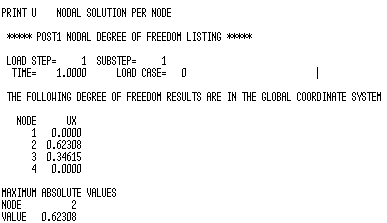
**Strain Diagram:**



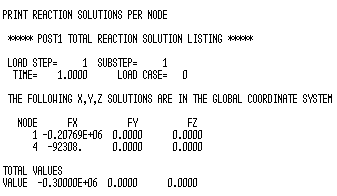
**Problem:- (7)**Consider the bar in fig. loaded as shown. Determine the nodal displacement, element stress and support reactions. Solve this problem by using ANSYS (APDL) Software.



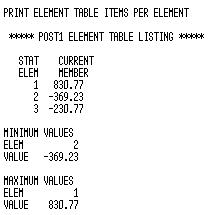
**Nodal Displacement Solutions:-**

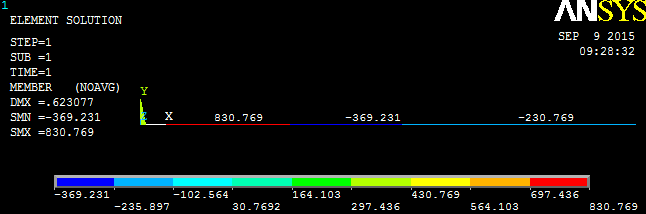


**Support Reactions Solutions:-**

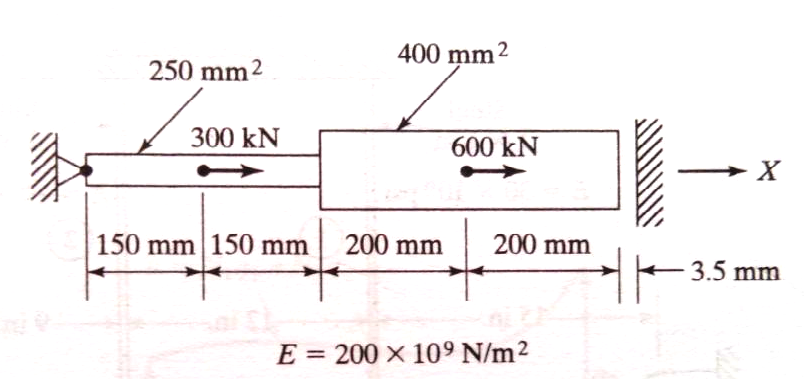


**Element Stresses Solution:-**

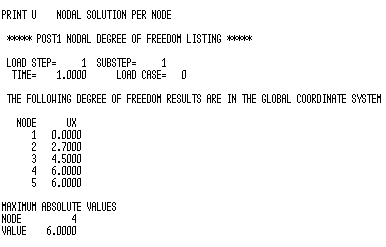




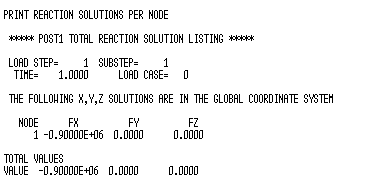
**Problem:- (8)**Consider the bar in fig. loaded as shown. Determine the nodal displacement, element stress and support reactions. Solve this problem by using ANSYS (APDL) Software.



**Nodal Displacement Solutions:-**



**Support Reactions Solutions:-**



**Element Stresses Solution:-**

