STRENGTHS REVIEW, EXAM #1

Simple Stress (Axial $\sigma$ and Shear $\tau$)

Simple Strain (Axial $\varepsilon$ and Shear $\gamma$)

Stress - Strain Diagram
- Modulus of Elasticity
- Modulus of Rigidity
- Yield Stress (0.2% offset method)
- Ultimate Stress

Poisson's Ratio (Lateral Strain and Longitudinal Strain)

Axial Deformation
- Multiple Forces
- Statically Indeterminate problems

Temperature Induced Strain and Stress

Axial Loading
- Normal Stress at a given angle and Maximum Normal Stress
- Shear Stress at a given angle and Maximum Shear Stress

Biaxial Loading
- State of stress at a given angle
- Principle normal stresses and maximum shear stress
- Mohr's Circle
- Sketches