Multiple Choice Quiz: Section 2.5: Hooke's Law for a Two Dimensional Angle Lamina

_____ 1. We use the transformation matrix to calculate local stresses from the global stresses. Is the transformation matrix the same to calculate local strains from the global strains?

A No

B Yes

_____ 2. What is the transformation of stresses at one point from one coordinate system to another coordinate system dependent on?

A the angle between the two coordinate systems

B elastic properties of the material

C elastic properties of the material and the angle between the two coordinate systems

_____ 3. What is the transformation of strains at one point from one coordinate system to another coordinate system is dependent on?

A the angle between the two coordinate systems

B elastic properties of the material and the angle between the two coordinate systems

C elastic properties of the material

_____ 4. Which matrix should be multiplied by the global strain vector to obtain the global stress vector?

A Transformation matrix

B Inverse transformation matrix

C Transformed rediced stiffness matrix

D Transformed compliance matrix

_____ 5. Which matrix should multiplied by the global stress vector to obtain the global strain vector?

A Inverse transformation matrix

B Transformed compliance matrix

C Transformation matrix

D Transformed reduced stiffness matrix

_____ 6. Which matrix should multiplied by the local stress vector to obtain the global stress vector?

A Inverse transformation matrix

B Transformation matrix

C Stiffness matrix

D Reduced stiffness matrix

_____ 7. If a normal stress is applied to an angle lamina in the global axes, it results only in normal strains in the global axes.

A True

B False