Multiple Choice Quiz: Section 2.3: Hooke's Law for Different Types of Materials

To find the value of the major Poisson's ratio, ν₁₂ of a unidirectional lamina, one would apply the following stress to the unidirectional lamina.
A Normal stress perpendicular to the fiber direction
B Normal stress parallel to the fiber direction
C Shear stress to the lamina in the 1-2 plane
An assumption that must be made when using Hooke's law for a two-dimensional unidirectional lamina in plane-stress is:

 A Only axial loads are applied.
 B There are no out-of-plane loads.
 C Only shear loads are applied.

To find the value of the longitudinal modulus E₁ of a unidirectional lamina, one would apply the following stress to the lamina.
A Normal stress perpendicular to the fibers

Normal stress parallel to the fibers

C Shear stress to the lamina in the 1-2 plane