

## Highlights Class 17

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On Friday we discussed how stresses vary across material boundaries. We talked about a pill box shape with possible differing stresses, densities, and properties across our infinitesimally small boundary. In the state we were analyzing the box it was static, so all of our forces summed to zero. Because our boundary is such that  $e_3$  goes to zero, there is no traction in that direction. We found that some forces are continuous across the interface, while others are not applicable. We also discussed the use of a flatjack in measuring stress in the earth in a theoretical mine shaft as well as over coring that uses the same principle but allows us to determine stresses in more than one direction.