ANSYS - Plate with a hole - Problem Specification

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Problem Specification

Consider the square plate of uniform thickness with a circular hole with dimensions shown in the figure below. The thickness of the plate is 1 mm. The Young's modulus $E=10^7$ MPa and the Poisson ratio is 0.3. A uniform pressure p=1 MPa acts on the boundary of the hole. Assume that plane stress conditions prevail. Determine the displacement and stress fields using ANSYS. This problem is taken from section 6.14, p. 240-244 of Cook et al
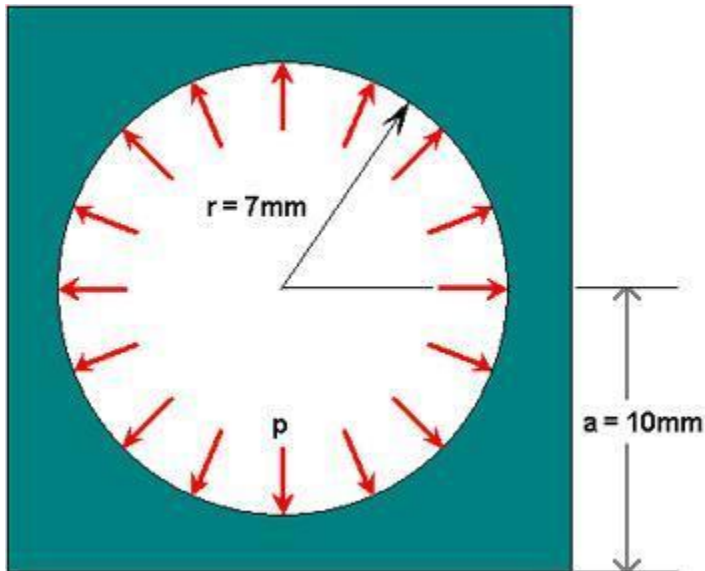
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