

Name:

Homework 3

Due 19 September 2019

1. An edge crack with applied splitting forces can be solved by the Westergaard function

$$Z_I = \frac{P}{\pi(b+z)} \sqrt{\frac{b}{z}}$$

use this Westergaard function to find the stress intensity factor.

2. An infinite plate containing a crack of length $2a$ is subjected to a uniform pressure p as shown. Determine the stress intensity factor.

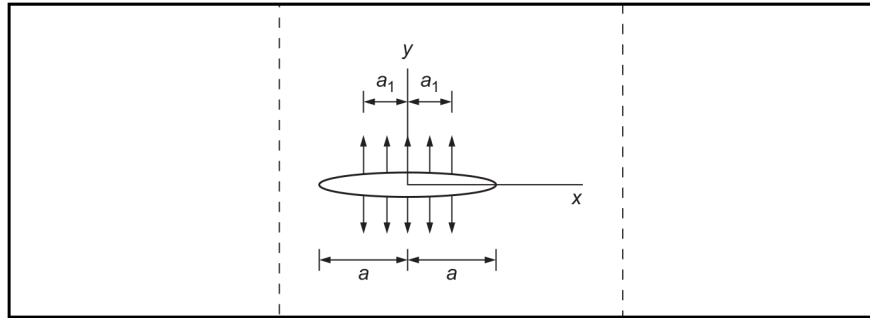


Figure 1: Illustration of Problem 2