## Homework Problem 5.G

**Given**: An angled water gate is supported by a pin joint at A and a roller support at B. The gate has a dimension into the page of b. The water has a density of  $\rho$ , and the weight of the gate is negligible compared to the weight of the water that it supports.

*Find*: Determine the reaction force on the gate at support B.

Leave your answer in terms of, at most: d, b, g and  $\rho$ .

