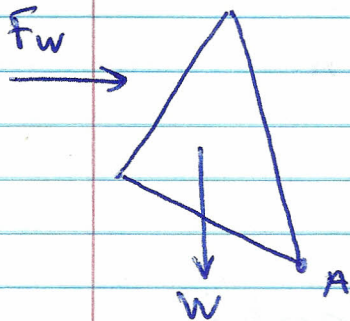


✓

taking moments about A,

$$-176580(2) + 73.575d \times 10^3 \left(\frac{2d}{3}\right) = 0$$



$$d^2 = \frac{176580(2)}{73.5 \times 10^3 \left(\frac{2}{3}\right)}$$

$$d = 8.4 \text{ m} \quad 2.68 \text{ m}$$

for dam to be stable against toppling we need d at least 8.4 m