

MathWalk

#1) “The Rock”

Kidd Brewer Stadium’s nickname is *The Rock*, but now there actually is a rock where students meet their friends for football games!



Figure 1. The Rock at the Kidd Brewer Stadium

While “The Rock” is impossible to measure very accurately with a tape measure, approximations for its dimensions are given in Figure 2. It is roughly 84” x 106” on top and has a front height of approximately 48” and a back height of approximately 64”. We may consider shape of The Rock as a rectangular solid with a triangular wedge under it. It is made of granite, which has a density of approximately 2.70 g/cm³.

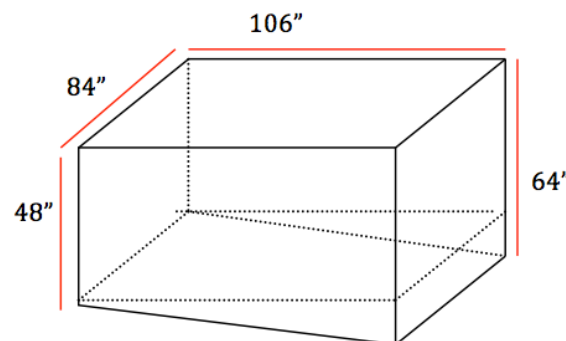


Figure 2. A rough diagram of The Rock’s dimensions

Tasks:

Grade 6 – 8:

What is the volume of “The Rock” in cubic inches?

Grades 9 – 12:

Using the above information, what would you estimate “The Rock” to weigh in pounds? In kilograms?
(Note: 454 g = .454 kg = 1 lb. 2.54 cm = 1 inch, which means 1 cubic inches equals approximately to 16.387 cubic cm)