

## Question:

Luke is spending time at the beach building sandcastles. He eventually notices that each level of a sandcastle will have half the square footage as the level below it. If he makes a 4 leveled sandcastle where the top level has a square footage of 16 what is the average square footage of a level?

## Reasoning + Answer:

<think> The first level, which would be directly below the 16 square foot level, would be  $16 * 2 = 32$ . The second level would therefore be  $32 * 2 = 64$ . The third level would be  $64 * 2 = 128$ . Altogether, the sand castle is  $16 + 32 + 64 + 128 = 240$  square feet. The average square footage of each level would be  $240 / 4 = 60$ . </think> <answer> 60 </answer>