

## Question:

Julia's boat sprang a leak while she was out on the lake. The boat was taking on two liters of water for every ten feet she rowed back towards shore. It took her sixteen seconds to row twenty feet. The shore was 64 seconds away. How much water had the boat taken on by the time Julia reached shore?

## Reasoning + Answer:

<think>1 . Calculate the feet per second Julia's boat is rowing , so first find the feet she rowed per second by dividing the distances she rowed by the time it took her to row that distance ,  $(20 \text{ feet} / 16 \text{ seconds})$ . She rows at  $20 / 16 = 1.25 \text{ feet / second}$  2 . Calculate how many seconds it would take Julia to row 64 feet by using the rowing rate in feet / second ,  $64 \text{ feet} / 1.25 \text{ feet / second} = 51.2 \text{ seconds}$  Since it took Julia a total of  $64 + 51.2 = 115.2 \text{ seconds}$  3 . For every ten feet she rows , she takes on 2 liters . Determine how many units of 10 feet there are in 64 feet and then multiply this to 2 for the total liters she takes on ,  $64 \text{ feet} / 10 \text{ feet / unit} = 6.44 \text{ units}$   $2 \text{ liters / unit} * 6.44 \text{ units} = 12.88 \text{ liters}$  Since it would take her 115.2 seconds and her boat takes 10 seconds to deliver 2 liters for every 64 feet it travels . Multiply these together ,  $(115.2 / 10) = 11.52$  and multiply these to her water needs  $(12.88 * 11.52)$  For some reason the numbers aren't commentary .  $(12.88 * 11.52) = 147$  Note that 0.55 either has been lost by transcribing this question or is fractional which corresponds to remainder or tops The computer also loses one decimal which keeps 147 liters for her . </think>

<answer>147 </answer>

Reward score