

POOL PLEASURE

Your city Department of Recreation has finally obtained approval for the construction of a swimming pool, and has requested your help with the design, and the time needed for filling the pool when it is built.

The pool will have to be able to hold 100 people, and in order for it not to be crowded, you should allow 20 square feet of surface area per swimmer. The pool should be 3 feet deep in the shallow end, and 9 feet deep in the deep end. You can make the shallow end as large as you like.

What are some possible shapes for the pool? Which do you like best? Which do you think would be the least expensive to build?

When the pool is built, how long will it take to fill? If the Recreation Department wants to open the pool on Memorial Day weekend (May 25), when should they begin filling it? The pipe they will be using can supply water at the rate of 6 gallons per minute, and a cubic foot of water contains 7.48 gallons.

Draw a picture of your pool, and write a letter to the Director of Recreation to explain your recommendations.

[Source: A Collection of Performance Tasks and Rubrics: Middle School Mathematics, Eye on Education, Larchmont, NY]

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