

## Problem #12 - Water Tank



There are 2 inlet pipes for a large water tank and one drain pipe. Alone at full force, the first inlet pipe can fill the tank in 10 hours. The second inlet pipe can fill the tank in eight hours. The drain pipe empties a full tank in six hours if neither inlet pipe is running.

Suppose the tank is empty. Both inlet pipes are running at full force. The drain pipe is open. When the tank is half full, the drain pipe is closed. How long would it take to completely fill the tank in this situation beginning with an empty tank? Please provide your answer to the nearest minute.

**Due date:** Friday, Dec. 16<sup>th</sup>, 2011

Submit to Mr. Streit in person or email your solution. Please place the POW number and your name in the Subject line of your email.

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All work must be shown to explain your solution.