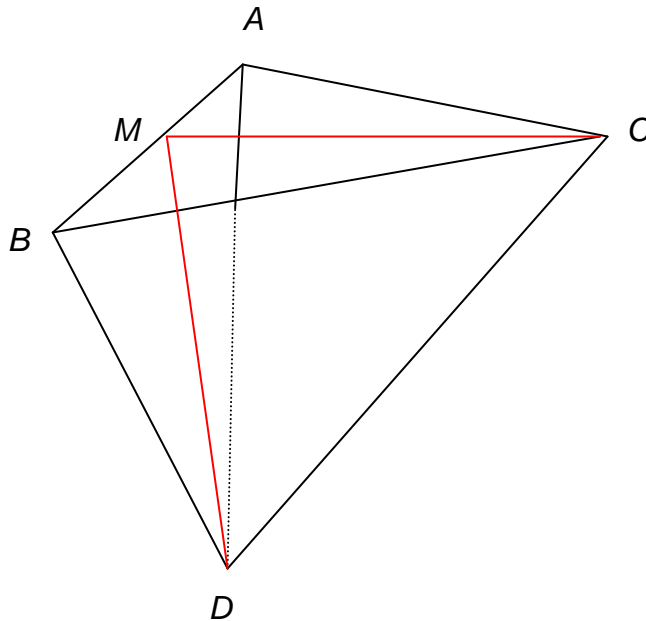A tank is in the shape of a pyramid as depicted in the following picture. Take into consideration the following qualities that this pyramid possesses: $\overline{CM} \perp \overline{DM}$, $\overline{CM} \perp \overline{AB}$, $\overline{DM} \perp \overline{AB}$, $\overline{AD} \cong \overline{BD}$, and $\overline{AC} \cong \overline{BC} \cong \overline{AB}$. Also note that $DM = 30$ m, $CM = 40$ m, and the triangle $\triangle ABC$ is parallel to the horizontal.

i)   If this tank is full of water, then how much work is required to pump the water to the top, which is open, so that the water flows out?

ii)   What if the top is closed and there is a spout at the top out from the water flows and the spout is 5 m tall? Assume that the tank is not full, but filled with water whose level is half the height of this tank.