HW1

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if s gets very small, $\frac{1280}{s}$ gets very big

$T = g(s)$ gets very big.

if s gets very big, like 16M, then $T = g(s)$

gets $8 + \frac{800}{2\times10^6} + \frac{1280}{16M} + \frac{5\times16\times10^6}{2\times10^6} \approx 48s$

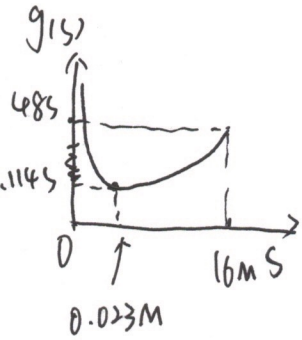
(2) There is a formula $a+b \geq 2\sqrt{ab}$, when $a=b$, there is a minium

of $a+b = 2\sqrt{ab}$

As $T = g(s) = 8 + \frac{800}{2\times10^6} + \frac{1280}{s} + \frac{5s}{2\times10^6}$

$\Rightarrow T = g(s) \geq 8 + \frac{800}{2\times10^6} + 2\sqrt{\frac{1280}{s}\times\frac{5s}{2\times10^6}} \approx 8.114s$

Only whe $\frac{1280}{s} = \frac{5s}{2\times10^6}$, there is an "=" found



Then $s = \sqrt{\frac{1280\times10^6}{5}} \approx 0.023M$

$\therefore$ Min T = Min $g(s)$ = 8.114s

YES, If R is bigger than before, this optimal

Will change.