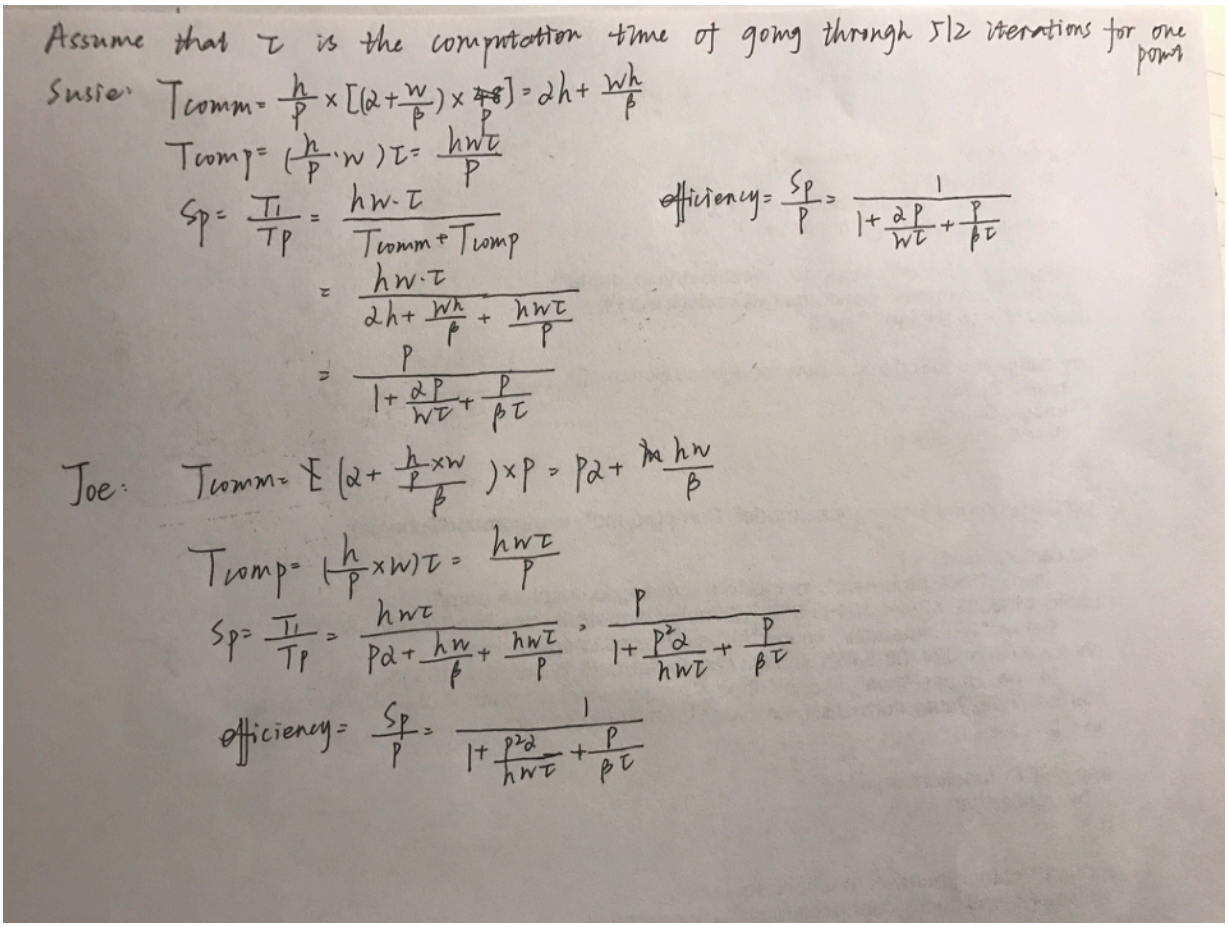
Gaozhiquan Wang 86085124
Luqi Tian 95243604

Which do you think is better? Why? Which intern do you offer a full-time job?

Joe's is better and I'll offer him a full time job. Since the message size of Susie's is small and needs more times to send. According to the latency-bandwidth model, Susie's would be slower than Joe's.
Also, for each gather operation, Susie has to wait all processes finishing their job, while some of them might be busy waiting for a long time and it would be a waste of CPU time.

Analyze the speedup and efficiency of the two approaches against the provided serial version.



Submit the plots and a discussion of your results.

Method	48cores / 1000*1000	64cores / 4000*4000
Joe	0.38s	6.60s
Susie	1.98s	12.87s
M&S	0.31s	2.86s

When picture size grows, M&S seems faster than Joe's and way faster than Susie. For Joe and Susie, we discussed above. For M&S, we will discuss below.

Compare the master/slave strategy with Susie/Joe's implementation.Which do you think will scale to very large image sizes? Why?

Master&Slave would be better. Since for large size image. The running time of each row/section varies a lot. Then busy waiting would be significant. Master&Slave deals with this well and no process would waste lots of time waiting, so it would be better.