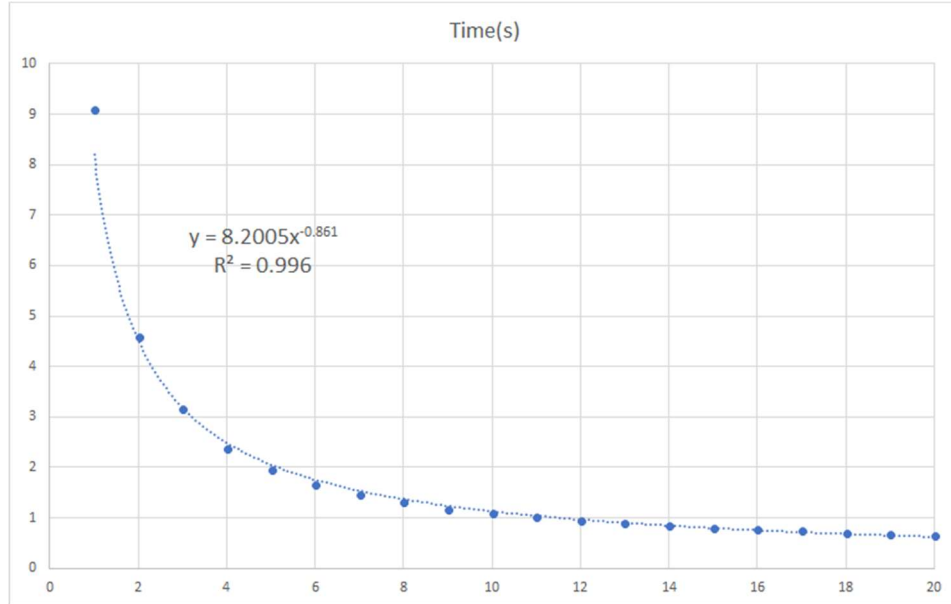
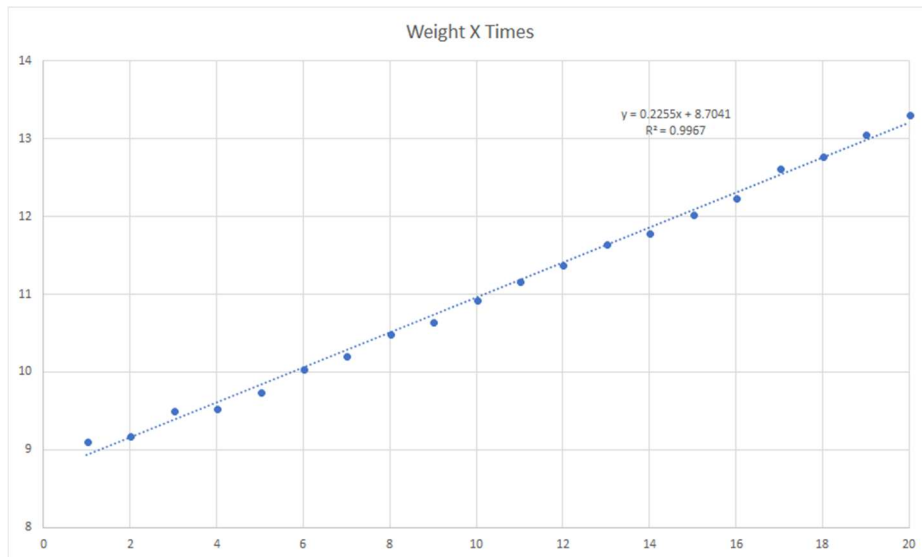


(Time) – (weight) graph



(Weight x Time) – (weight) graph



We executed infinite-looping programs 32 times first and executed trial to test our load balancing. The first plot is an execution time – weight graph. We tested 100 times and the graph shows its average execution time for each weight. It shows that our load balancing works well.

The speed is in proportion to $\frac{\text{weight}}{\text{weight}+B}$ for some constant B . Therefore, the execution time is proportional to $\frac{\text{weight}+B}{\text{weight}}$. Let $f(w)$ be the execution time when weight is equal to w . Then $f(w) = k(\frac{w+B}{w})$ for some constant k . We can see that $wf(w) = k(w+B) = kw + kB$. So $wf(w)$ should be a linear function. The second plot implies this hypothesis is correct in our load balancing method.