Add a PDF file REPORT\_perf.pdf that reports your performance and performance-per-Watt results for the 2 benchmark inputs: benchmarks/mixed.c and benchmarksO3/mmmRV32IM.c. To

calculate instructions-per-second, use simulation to collect instructions-per-cycle for each

benchmark input and look in the Synopsys synthesis report to find cycles-per-second. To calculate instructions-per-second-per-Watt, look in the Synopsys synthesis report to find the total

power (“Total Dynamic Power” + “Cell Leakage Power”)6. In a table, report (1) instructions-per-

cycle, (2) instructions-per-second, (3) instructions-per-second-per-Watt. Report separately for

each of the 2 benchmark inputs and as weighted average over 2 benchmark inputs benchmarks/mixed.c and benchmarksO3/mmmRV32IM.c (assume they occupy the processor

for the same fraction of the time). These weighted averages are used for determining the

competition portion of the lab score. (Show and explain this calculation.) In a similarly

formatted second table, report the gain/loss for each of the 2 benchmark inputs relative to your

Lab 3 implementation.

|  | Instr/Cycle | Instr/Sec | Instr/Sec/Watt |
| --- | --- | --- | --- |
| mixed.C | 1.0587 | 258219512.195 | 4956980275.23 |
| mmmRV321M.c O3 | 1.1592 | 282738773.649 | 5427670868.51 |
| Average | 1.10895 | 270479142.922 | 5192325571.87 |

|  | Instr/Cycle Gain | Instr/Sec Gain | Instr/Sec/Watt Gain |
| --- | --- | --- | --- |
| mixed.C | 1.10214922028 | 1.185482454 | 4.03341356435 |
| mmmRV321M.c O3 | 1.16958610016 | 1.25801821993 | 4.28020485275 |