5 runs of the program were done on ARMSim, which gave instructions per second numbers for each run.

The 5 run average is:

Assuming 40MHz clock, CPI is:

With a 32Khz clock, CPI is:

With a 1Mhz clock, CPI is:

With a 1Ghz clock, CPI is:

According to ARMSim there are 574 instructions. So, the total number of cycles is on average:

Sample data:

|  |  |  |  |
| --- | --- | --- | --- |
| **x** | **cosh(x)** | **sinh(x)** | **ex** |
| 0 | 1.003 | 0.04332 | 1.046 |
| 0.88 | 1.416 | 1 | 2.416 |
| π/4 | 1.327 | 0.870 | 2.198 |
| - π/4 | 1.327 | -0.8704 | 0.4568 |
| -1 | 1.546 | -1.178 | 0.3688 |