**Arquitetura de Computadores 2**

**Exercício Prático 05 – Prof. Romanelli**

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**Experiência 1 – Avaliação do Arduíno:**

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| **Tipo** | **Tempo Base** | **Teste (i = i op 3)** | | | **Teste (i = i op j)** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Byte | 2,462716s | 2,526108s | 2,526108s | 2,652400s | 2,652400s | 2,652400s | 2,841836s |
| Int | 2,715548s | 2,841836s | 2,778696s | 3,031272s | 3,094428s | 3,094428s | 3,599592s |
| Float | 3,220716s | 12,437840s | XXXX | 22,356420s | 12,690432s | XXXX | 22,609000s |

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| **Tipo** | **MIPS (ATM328P)** | | | | | |
| **Constante** | | | **Variável** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Byte | 15,7748 | 15,7748 | 5,2719 | 5,2719 | 5,2719 | 2,6376 |
| Int | 7,9184 | 15,8358 | 3,1673 | 2,6393 | 2,6393 | 1,1311 |
|  | | | | | | |
| **Tipo** | **MFLOPS (ATM328P)** | | | | | |
| **Constante** | | | **Variável** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Float | 0,1084 | XXXX | 0,0522 | 0,1055 | XXXX | 0,0515 |

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| **Tipo** | **CPI** | | | | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Byte | 1,014272 | 1,014272 | 3,034944 | 3,034944 | 3,034944 | 6,06592 |
| Int | 2,020608 | 1,010368 | 5,051584 | 6,06208 | 6,06208 | 14,144704 |
| Float | 147,473984 | XXXX | 306,171264 | 151,515456 | XXXX | 310,212544 |

**Experiência 2 – Meu Computador:**

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| **Tipo** | **Tempo Base** | **Teste (i = i op 3)** | | | **Teste (i = i op j)** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Char | 20,1 ms | 20,3 ms | 19,7 ms | 23,8 ms | 16 ms | 14,8 ms | 21,6 |
| Int | 19,4 ms | 19,8 ms | 19,2 ms | 18,6 ms | 14,7 ms | 15,4 ms | 22 ms |
| Float | 19,8 ms | 31,5 ms | XXXX | 26,4 ms | 26,4 ms | XXXX | 27,6 ms |

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| **Tipo** | **MIPS (ATM328P)** | | | | | |
| **Constante** | | | **Variável** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Byte | 5000 | 2500 | 270 | 243 | 188 | 666 |
| Int | 2500 | 5000 | 1250 | 212 | 250 | 384 |
|  | | | | | | |
| **Tipo** | **MFLOPS (ATM328P)** | | | | | |
| **Constante** | | | **Variável** | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Float | 85 | XXXX | 128 | 85 | XXXX | 151 |

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| **Tipo** | **CPI** | | | | | |
| *Soma* | *Or* | *Mult* | *Soma* | *Or* | *Mult* |
| Byte | 358 | 716 | 6621 | 7340 | 9496 | 2688 |
| Int | 716 | 358 | 1433 | 8426 | 7168 | 4156 |
| Float | 20932 | XXXX | 11828 | 11828 | XXXX | 13964 |

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| **Identificação** | **Programa em C** | | **Teste de Performace** | |
| **Sup (int)** | **Sup (FP)** | **Sup (int)** | **Sup (FP)** |
| AMD Ryzen 5 5600x 6-Core | 0,658 | 1,450 | 0,911 | 1,107 |
| Intel Core  i7-8550U @ 1.80GHz | 0,660 | 1,452 | 1,940 | 1,790 |

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| **Identificação** | **Programa em C (int)** | | **Speed Up** |
| Intel Core  i7-8550U @ 1.80GHz | Linux Mint | Windows 11 | 1,484 |

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| **Identificação** | **Programa em C** | | **Speed Up** |
| AMD Ryzen 5 5600x 6-Core | Compilador Online | GCC 13.2.0 | 0,540 |
| Intel Core  i7-8550U @ 1.80GHz | Compilador Online | GCC 14.2.0 | 0,636 |

**FIM**