**Practica 5**

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**Eje 3**

|  |  |  |
| --- | --- | --- |
| **Num of processors**  **n** | **2** | **8** |
| **103** | 0.000378 | 0.019386 |
| **107** | 0.197221 | 1.719871 |

**Eje 4**

|  |  |  |
| --- | --- | --- |
| **Num of processors**  **n** | **2** | **8** |
| **103** | 0.000525 | 0.004336 |
| **107** | 0.604119 | 1.124867 |

Point-to-point communication is faster when using 2 processors, but when using 8 processors, broadcasting is faster. That means broadcasting is more efficient when using many processors.  
In scenarios with a small number of processors, the simplicity and directness of point-to-point communication can result in faster communication, while broadcasting becomes more advantageous as the number of processors increases

**Eje 5**

|  |  |  |
| --- | --- | --- |
| **point-to-point communication** | | |
| **Num of processors**  **n** | **2** | **8** |
| **103** | 0.000906 | 0.006112 |
| **107** | 0.678176 | 1.279257 |

|  |  |  |
| --- | --- | --- |
| **MPI reduction function** | | |
| **Num of processors**  **n** | **2** | **8** |
| **103** | 0.000550 | 0.004842 |
| **107** | 0.000256 | 0.031345 |

Using MPI communication is faster than point-to-point communication, especially for larger amounts of data.