For process :- sysbench --test=cpu --cpu-max-prime=20000 run

x-axis -> time

y-axis -> virtual address

The graph is scattered and the page faults are occurring at random addresses. The virtual address space has not allocated contiguous physical memory for virtual address which is shown by graph. As page table is greater in size than physical address, so there are some null values in it for which page fault occurs.

For process :- sysbench --test=fileio --file-total-size=150G prepare

x-axis -> time

y-axis -> virtual address

The graph has shown page fault with ups and downs and here the process is accessing nearby addresses so page fault occurs as the memory for the pages are not allocated and contiguous memory is checked and page fault occurs for them at same time in last portion.

For process:- Sorting

Graph is straight line as process is accessing the data in increasing order

And if it is not found than page fault occurs for that address. All the process has different variation for page faults.