

1. **Answer:**

- Thread creation typically requires fewer resources than process creation.
- When a thread is created, it shares the resources (such as code and data) of its parent process, so, no allocation of memory for the shared resources is necessary. Instead, only a stack and a small thread control block containing register values and other thread-related state information are required.
- For process creation, space for code and data has to be allocated for individual processes. Moreover, creating a process requires allocating space for a process control block (PCB) which is a rather large data structure.

2. **Answer:**

Any kind of sequential program is not a good candidate to be threaded.

3. **Answer:**

- In a multi-threaded solution, when a kernel-level thread is blocked (such as waiting for I/O or other system events to complete), another kernel-level thread can be switched in to continue running.
- A single-threaded process will not be capable for performing useful work when it is blocked.
- Therefore, a multi-threaded solution would perform better even on a single-processor system.

4. **Answer:**

Program A: 0 5

Program B: 5 0

Self-test

1. B
2. C
3. D
4. B
5. D
6. A