Assignment 1

1) Why would you use threads instead of processes, or vice versa?

<u>threads</u>
- share memory (faster)
- lack of memory available
- no resource locking

<u>processes</u>
- independence
- no race conditions
- multiprocesor applications

2) Was the Terminator a real-time system and/or an embedded system? Why?

probably both - he had uchips responding to real time events (real-time system) and he certainly had H/w components interfacing with his CPUs (embedded system)

3) A routine is continuously in a do-loop until it sees a hardware register flag set. Is this an example of deadlock, starvation, spinlock, some combination, or none of these?

none - no resource was going to be locked, otherwise it would be an example of spinlock. However it is an example of livelock.

4) Is your personal computer an embedded system? Why?

yes - it has many H/w components associated with it.

5) Two tasks are polling continuously for an unavailable resource. What is this?

1) ~~livelock~~

2) spinlock also if the task tries to lock the resource once it has it.