- Is lack of change in system and user time in between sampling periods a guarantee that deadlock has occurred? Explain briefly.

  The lack of change in sys and user time is not a guarantee of a deadlock because there is a chance for the sampling period time to be smaller than the resolution of sys and user time values.

- What aspects of the system conditions would affect how long the sampling period should be to ensure a reliable assessment of whether deadlock has occurred or not.

  OS activity, the number of jiffies per second, and the amount of time it takes a thread to finish it's work are all important aspects which could affect the sampling period duration. In the event that the OS blocks all of our threads for other running processes, the sampling period could be so small that this registers a deadlock. In the event that jiffies per second is set very high, a high sampling period may be more likely to show a deadlock. Finally in the event that a threat takes a long time to finish it's work, a sample period shorter than this time may report a false deadlock.

- Informal experimentation tends to show that larger values of ACTIVE_DURATION make deadlock less likely, as indicated by how many sampling periods it takes to occur, and that smaller values make it more likely. Try a few different values yourself and then discuss whether you think this is true, and why you think it might have the influence you observe.

  Larger values of active duration allow the thread to finish any work it's doing allowing other threads to begin work before the next sample is taken.