

Week #6: Threading
Exam Review Question
CS 241: Fall 2013

These questions are provided to you to help you study material covered in CS 241 that may appear on the final exam. These exact questions may or may not appear on the final exam, but the topics they cover will almost certainly be on the final exam.

1. Consider the code below:

```
void *thread(void *ptr) {
    printf("Hello!");
}

void main() {
    pthread_t pid1, pid2;
    pthread_create(&pid1, NULL, thread, NULL);
    pthread_create(&pid2, NULL, thread, NULL);

    pthread_join(pid1, NULL);
}
```

How many times is "Hello!" printed?

2. Name two things that are shared between multiple threads in a single process. Additionally, name two things that are not shared.
3. What is one specific reason that a context switch between two threads that are in a single process is faster than a context switch between two processes?
4. In terms of the system resources needed to create them, is it cheaper to create a thread or a process? Why?