## Problem 54. (4 points):

Consider the following C program. (For space reasons, we are not checking error return codes, so assume that all functions return normally.)

```c
pid_t pid;

void handler1(int sig) {
  printf("zip");
  fflush(stdout);   /* Flushes the printed string to stdout */
  kill(pid, SIGUSR1);
}

void handler2(int sig) {
  printf("zap");
  exit(0);
}

main() {
  signal(SIGUSR1, handler1);
  if ((pid = fork()) == 0) {
    signal(SIGUSR1, handler2);
    kill(getppid(), SIGUSR1);
    while(1) {};
  }
  else {
    pid_t p; int status;
    if ((p = wait(&status)) > 0) {
      printf("zoom");
    }
  }
}
```

What is the output string that this program prints?

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