```
#
# Makefile for timer
# Author: Michael Kepple
# Date:   21 Feb 2013
#
timer: timer.c timer.h
/*
 * File:   timer.c
 * Author: Michael Kepple
 * Date:   21 Feb 2013
 * Note:   Input is assumed to be valid.
 *
 */
#include "timer.h"
bool ringBack;

int main(int argc, char* argv[])
{
    ringBack = false;
    struct sigaction action;
    int delay = atoi(argv[1]);
    alarm(delay);
    action.sa_handler = timer;
    sigemptyset(&action.sa_mask);
    if (sigaction(SIGALRM, &action, NULL) < 0)
    {
        perror("sigaction");
        exit(EXIT_FAILURE);
    }
    while (!ringBack) {}
    printf("RING!\n");
}

void timer(int seconds)
{
    ringBack = true;
}
/*
 * File:   timer.h
 * Author: Michael Kepple
 * Date:   21 Feb 2013
 *
 */
#ifndef TIMER_H
#define TIMER_H
#include <stdlib.h>
#include <stdio.h>
#include <unistd.h>
#include <signal.h>
typedef int bool;
#define true 1
#define false 0
void timer(int seconds);
#endif
```