Question 1. (1pt) When you call `pthread_create()`, what happens? Circle the best answer.
   (a) The thread argument is cast into a `void *` parameter.
   (b) The thread disconnects from its parent thread.
   (c) A new thread is created that shares all main thread resources.
   (d) Memory is copied from one thread to another.
   (e) A new thread is joined into the main thread.
   (f) The thread detaches by terminating and returning `NULL`.

Question 2. (1pt) When you call `pthread_detach()`, what happens? Circle the best answer.
   (a) The thread argument is cast into a `void *` parameter.
   (b) The thread disconnects from its parent thread.
   (c) A new thread is created that shares all main thread resources.
   (d) Memory is copied from one thread to another.
   (e) A new thread is joined into the main thread.
   (f) The thread detaches by terminating and returning `NULL`.

Question 3. (7pts) What is the exact terminal output of the code below? Assume that all system and library calls return successfully. If multiple outputs are possible, use a diagram to show all possibilities.

```c
void * omg( void * arg )
{
    int * x = (int *)arg;
    int rc = pthread_detach( pthread_self() );
    printf( "%d lucky %d\n", rc, *x );
    return NULL;
}

int main()
{
    pthread_t tid;
    int x = 13;
    int rc = pthread_create( &tid, NULL, omg, &x );
    x = 7;
    rc = pthread_create( &tid, NULL, omg, &x );
    printf( "%d unlucky %d\n", rc, x );
    sleep( 10 );
    return EXIT_SUCCESS;
}
```

Question 4. (1pt) In addition to the main thread, how many child threads are created?