Question 1. (1pt) When you call `pthread_create()`, what happens? Circle the best answer.
   (a) Snapchat IPO and everyone loses money.
   (b) The thread disconnects from its parent thread.
   (c) A new thread is created.
   (d) Memory is copied from one thread to another.

Question 2. (1pt) When you call `pthread_detach()`, what happens? Circle the best answer.
   (a) Snapchat IPO and everyone loses money.
   (b) The thread disconnects from its parent thread.
   (c) A new thread is created.
   (d) Memory is copied from one thread to another.

Question 3. (6pts) 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( "lucky %d\n", *x );
    return NULL;
}

int main()
{
    pthread_t tid;
    int x = 7;
    int rc = pthread_create( &tid, NULL, omg, &x );

    x = 13;
    rc = pthread_create( &tid, NULL, omg, &x );

    sleep( 1 );
    return EXIT_SUCCESS;
}
```

Question 4. (2pts) What is the most likely terminal output of the code above if the `sleep()` call is commented out? Assume that all system and library calls return successfully. If multiple outputs are possible, do not show all possibilities.