Multithreading Problem

In this assignment you will create an Android application that relies on two background threads to accomplish its goals. The main activity waits for the threads to return an agreeable ‘magic’ number. A magic number is a four digits value that either (1) is a multiple of seven or (2) is a multiple of four and ‘2’ is its last digit. The main steps in the application are

1. The main activity controls the UI presentation, while waiting it shows a ‘rotating’ progress bar to suggest delay.
2. Each background thread does the following: (a) sleep for 1 second, (b) generate a random four-digits number, (3) if the number is ‘magic’ send a message to the main thread with the calculated value, otherwise repeat the cycle (sleep, …)
3. When the main activity receives the message containing a magic number it stops both background threads and displays the value of the magic number.

Note.
Your implementation should use a message-passing Handler mechanism for the threads to communicate with the UI activity (request token, send message).