Ex2

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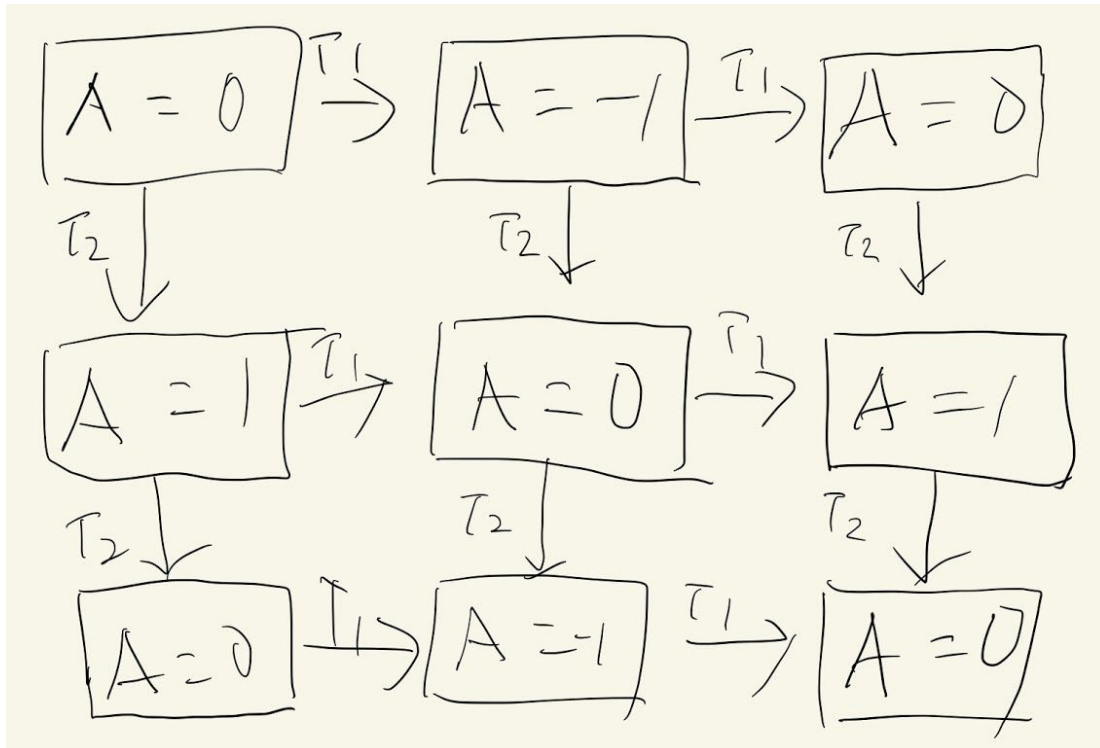
Task 2.1
Counter.Next() might be called twice before Counter.GetCurrent() so this program is incorrect.

Task 2.2

Task 2.3
password: md73
source:

```java
static public void main(String[] args) {
    String inFileName = "ex02_mobydick.enc";
    String outFileName = "ex02_mobydick";
    List<Character> candidateChars = new ArrayList<>();
    for (char c = 'a'; c <= 'z'; c++) {
        candidateChars.add(c);
    }
    for (int i = 0; i <= 9; i++) {
        candidateChars.add(Character.forDigit(i, 10));
    }
    List<String> candidatePasswords = new ArrayList<>();
    candidateChars.forEach(c1 -> {
        candidateChars.forEach(c2 -> {
            candidateChars.forEach(c3 -> {
                candidateChars.forEach(c4 -> {
                    candidatePasswords.add("" + c1 + c2 + c3 + c4);
```

```java
            });
        });
    });
});
    for (int i = 0; i < 4; i++) {
        final int start = candidatePasswords.size() / 4 * i;
        final int end = Math.min(candidatePasswords.size() / 4 * (i
+ 1), candidatePasswords.size());
        new Thread(() -> {
            for (int j = start; j < end; j++) {
                String password = candidatePasswords.get(j);
                boolean valid = Decrypt(inFileName, outFileName,
password);
                if (valid) {
                    System.out.println(password);
                }
            }
        }).start();
    }
}
```

task 2.4

```java
public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int n = scanner.nextInt();
        int p = scanner.nextInt();
        for (int i = 0; i < p; i++) {
            int start = n / p * i;
            int end = Math.min(n / p * (i + 1), n);
            new Thread(() -> {
                for (int j = start; j < end; j++) {
                    if (BigInteger.valueOf(j).isProbablePrime(100)) {
                        System.out.println(j);
                    }
                }
            }).start();
        }
    }
}
```