**Practice 4H (Part 1) Simultaneous Equations by Substitution**

1. A machine tests car batteries for faults. A functional battery takes 2 minutes to test, but a faulty battery requires 5 minutes to detect and repair. In an 83 minute session, 37 batteries were tested.

a. With the given information construct a system of linear equations.

b. How many batteries were faulty? (Solve the system)