SOLVE THE LOGARITHMIC EQUATION

Solve the equation

$$(\ln x)^2 - 2.5(\ln x)(\ln(4x - 5)) + (\ln(4x - 5))^2 = 0,$$

where $x$ and all expressions in the equation are real.

RULES

(1) You must be an undergraduate enrolled in classes at USC-Columbia.
(2) Write your solutions clearly and show all of your work.
(3) Staple all sheets together.
(4) Bring your solutions to the math office (LC 411) and drop it in the box provided.
(5) **Include your name and email address.**
(6) Sign the drop-off sheet to record your submission.

Look for a new problem on the 15th of every month!