

Now, using back substitution we can find x as

$$\begin{aligned}\Rightarrow a_{mn} \cdot x_m &= b_m' \\ x_m &= \frac{b_m'}{a_{mn}}\end{aligned}$$

$$\Rightarrow a_{n+1, n+1} \cdot x_{n+1} + a_{n+1, n} x_n = b_{n+1}'$$

$$\Rightarrow x_{n+1} = \left(\frac{b_{n+1}' - a_{n+1, n} x_n}{a_{n+1, n+1}} \right)$$

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Therefore, we can find x vector that is the solution to

$$Ax = B.$$