```matlab
A = [1, 2, -1; 3, 1, 1; 1, 1, 1]; % Coefficient matrix b = [4; 9; 3]; % Right-hand side vector n =
length(b); % Forward elimination for k = 1:n-1 for i = k+1:n factor = A(i,k) / A(k,k); A(i,k:n) =
A(i,k:n) - factor * A(k,k:n); b(i) = b(i) - factor * b(k); end end % Back substitution x = zeros(n, 1);
for i = n:-1:1 x(i) = (b(i) - A(i,i+1:n) * x(i+1:n)) / A(i,i); end x % Solution vector
```