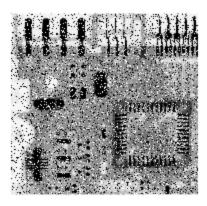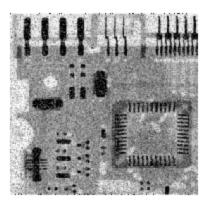```
function linear_average_filter()
    A = imread('Fig3.37(a).jpg');
    B = A;
    [row, col] = size(A);
    for i = 2 : row-1
        for j = 2 : col-1
            f = 0;
            for s = i-1 : i+1
                for t = j-1 : j+1
                    f = f + A(s,t)/9;
                end
            end
            B(i,j) = f;
        end
    end
    subplot(1, 2, 1);
    imshow(A);
    subplot(1, 2, 2);
    imshow(B);
end
```



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