

```

function blockimage(A)
% BLOCKIMAGE Generate a monochrome block image of a matrix
% using IMAGESC. Example:
%   >> blockimage(magic(5))
[U,S,V]=svd(A);
rone=S(1)*U(:,1)*V(1,:);
rtwo=U(:,1:2)*S(1:2,1:2)*V(1:2,:);
tiledlayout(1,3,'Padding','compact');
nexttile
sgtitle('A and Rank 1, 2 Approximations')
colormap('gray')% make a monochrome image
imagesc(A)          % treat A as an image (scaled shading)
axis equal, axis off% each entry is a square; declutter
title('A')
nexttile
colormap('gray')% make a monochrome image
imagesc(rone)        % treat A as an image (scaled shading)
axis equal, axis off% each entry is a square; declutter
title('Rank One Approx.')
nexttile
colormap('gray')% make a monochrome image
%colorbar on
imagesc(rtwo)        % treat A as an image (scaled shading)
axis equal, axis off% each entry is a square; declutter
title('Rank Two Approx')

```