

MATLAB Command Window

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>> type drawwaves

% DRAWWAVES - Draws waves
%-----
lwave = linspace(-3,8);           % x values for length of waves
twave = 1/2*sin(lwave.*2);       % y values for top wave
mwave = 1/2*sin(lwave.*2)-1;     % y values for middle wave
bwave = 1/2*sin(lwave.*2)-2;     % y values for bottom wave
plot(lwave,twave,'b-',lwave,mwave,'b-',lwave,bwave,'b-');
                                     % draw waves

>> type drawsun

% DRAWSUN - Draws sun
%-----
wsun = linspace(pi,2*pi);        % x values for diameter of sun
tsun = sqrt(-((3*pi)/2 - wsun).^2+(pi/2)^2)+5;
                                     % y values for top half of sun
bsun = -sqrt(-((3*pi)/2 - wsun).^2+(pi/2)^2)+5;
                                     % y values for bottom half of sun
plot(wsun,tsun,'yx-',wsun,bsun,'yx-'); % draw sun

>> type drawboat

% DRAWBOAT - Draws boat
%-----
lboat = linspace(-sqrt(2),sqrt(2)); % x values for length of boat
bboat = -sqrt(-lboat.^2+2)+1;       % y values for bottom half of boat
tboat = 1;                          % y values for top half of boat
mast = [linspace(1,3)]';           % y values for mast
wsail = linspace(-1.3,0);          % x values for sail
dsail = 3+1.3*wsail;               % y values for sail
fill(lboat,bboat,'r',lboat,tboat,'r'); % draw boat
plot(0,mast,'k-',wsail,dsail,'k-',wsail,1.31,'k-');
                                     % draw mast and sail

>> drawwaves;
>> hold on;
>> drawsun;
>> hold on;
>> drawboat;
Warning: Imaginary parts of complex X and/or Y arguments ignored
> In drawboat at 10
>> axis equal
>> axis ([-3 7 -3 7])
>>

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