Interpolate Two Data Files

My Solutions ›

Load the following MATLAB MAT-files:

data1.mat

data2.mat

The file data1.mat contains the variables x1 and y1. The file data2.mat contains the variables x2 and y2. Use cubic splines to interpolate both y1 and y2 to a uniform x-grid. Plot y1+y2 versus x. Your result should look like $y = \sin x$.

Script

Reference Solution | Save | Reset | MATLAB Documentation (https://www.mathworks.com/help/)

```
load data1; figure(1); plot(x1,y1);
load data2; figure(2); plot(x2,y2);
xx=linspace(0,2*pi,1000);
yy1=interp1(x1, y1, xx, 'spline'); %interpolate y1 to the xx grid using 'spline'
yy2=interp1(x2, y2, xx, 'spline'); %interpolate y2 to the xx grid using 'spline'
yyadd=yy1+yy2;
figure(3); plot(xx,yyadd);

```

▶ Run Script

Assessment: All Tests Passed

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✔ **Test addition of y1 and y2**

Output