MATLAB lesson 4: Graphics
Solutions to exercises

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1 Based on the lesson

1. Basic x-y plot
   (a) x=1:10 or x=linspace(1,10,1)
   (b) y=rand(1,10)
   (c) plot(x,y)
   (d) close
2. Customise lines and markers
   `plot(x,y,'--o','LineWidth',2,'MarkerSize',8)`
3. Set axis range
   (a) `axis([2,8,0.2,0.8])`
   (b) `xlim([0,10])`
   (c) axis auto
4. grid on
5. clf
6. loglog(x,y)
7. Make your figure intelligible to others
   (a) `title('2d plot of random numbers')`
   (b) `ylabel('y-values')`
   (c) `xlabel('x-values')`
   (d) `legend('random numbers','Location','SouthEast')`
8. Sub-plots

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```
figure
subplot(2,2,1)
plot(x,y)
subplot(2,2,2)
plot(x,y1)
subplot(2,2,[3,4])
plot(x,y2)
```

9. `surf(peaks(500))`
10. Bar chart with sub-plot
    (a) rdata=rand(3,4)
    (b)
    ```
    figure
    subplot(1,2,1)
    bar(rdata)
    subplot(1,2,2)
    bar(rdata,'stacked')
    ```
11. `print('myfigure','-dpng')`
12. `saveas(gcf,'BarChart','fig')`

2 Using the MATLAB documentation

1. `open('BarChart.fig')`
2. `image(peaks(500),'CDataMapping','scaled')`