```matlab
%Homework 3/15 Problem 3: Moore's Law

year=[1965:2:2015]; %I first define the years for use on the graph and
 table
t=[0:2:50]; %I define the time to use in the formula
d=30*exp(t/2); %Setting up the formula for transistor desnity
year_density=[year; d]; %Create matrix for the year and density
fprintf('Year, Transistor Density\n'); %Create labels for table
fprintf('%5.2f %3.2f\n', year_density) %Set up tale with values

%Divide into 4 subplots
%Linear Plot
subplot(2,2,1)
plot(year, d)
%Label title and axes
title('Linear Plot'), xlabel('Year'), ylabel('Transistor Density')

%Semilog X Plot
subplot(2,2,2)
semilogx(year, d)
%Label title and axes
title('Semilog X Plot'), xlabel('Year'), ylabel('Transistor Density')

%Semilog Y Plot
subplot(2,2,3)
semilogy(year, d)
%Label title and axes
title('Semilog Y Plot'), xlabel('Year'), ylabel('Transistor Density')

%Loglog Plot
subplot(2,2,4)
loglog(year,d)
%Label title and axes
title('Loglog Plot'), xlabel('Year'), ylabel('Transistor Density')

Year, Transistor Density
1965.00 30.00
1967.00 81.55
1969.00 221.67
1971.00 602.57
1973.00 1637.94
1975.00 4452.39
1977.00 12102.86
1979.00 32898.99
1981.00 89428.74
1983.00 243092.52
1985.00 660793.97
1987.00 1796224.25
1989.00 4882643.74
1991.00 13272401.76
1993.00 36078128.52
1995.00 98070521.17
```
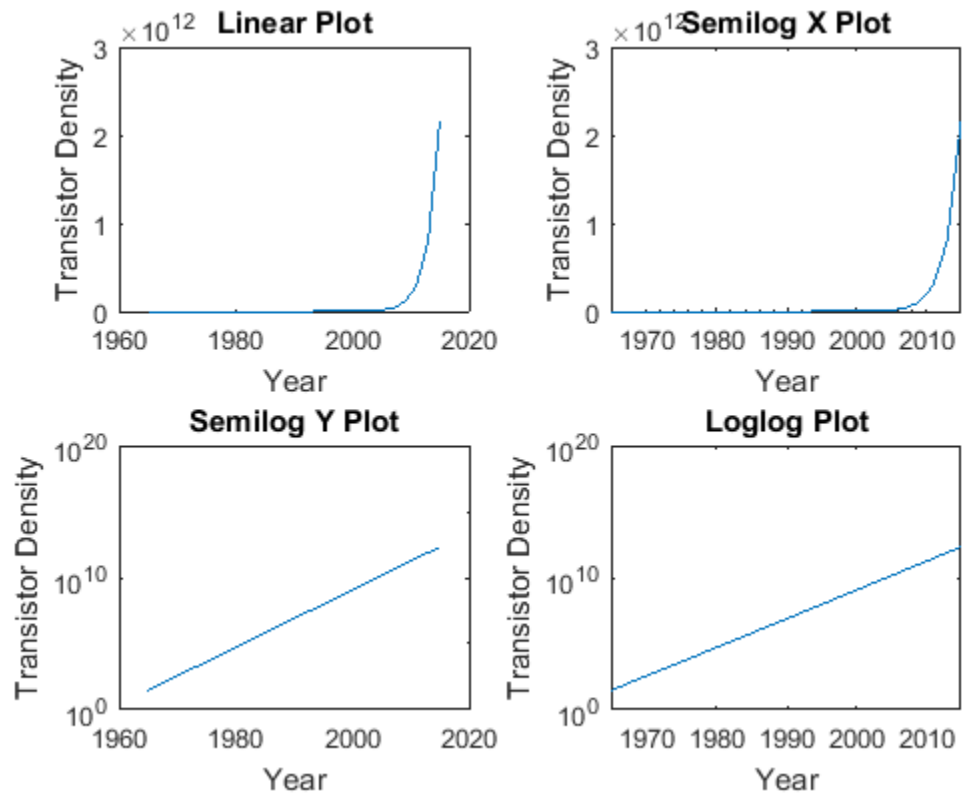
```
1997.00 266583315.62
1999.00 724648582.61
2001.00 1969799074.12
2003.00 5354469028.90
2005.00 14554955862.29
2007.00 39564472034.50
2009.00 107547385383.95
2011.00 292344103387.47
2013.00 794673663895.30
2015.00 2160146980121.58
```