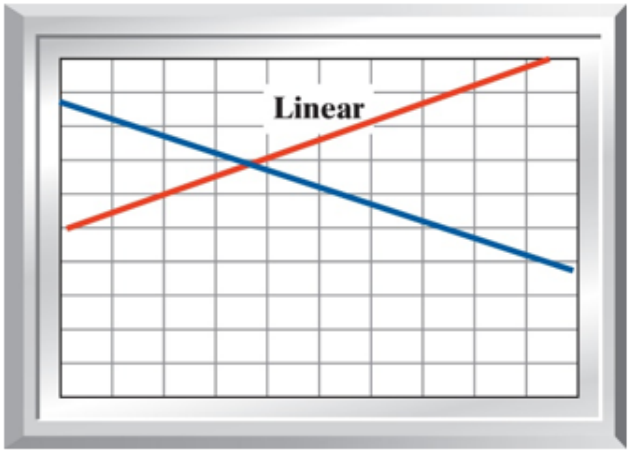
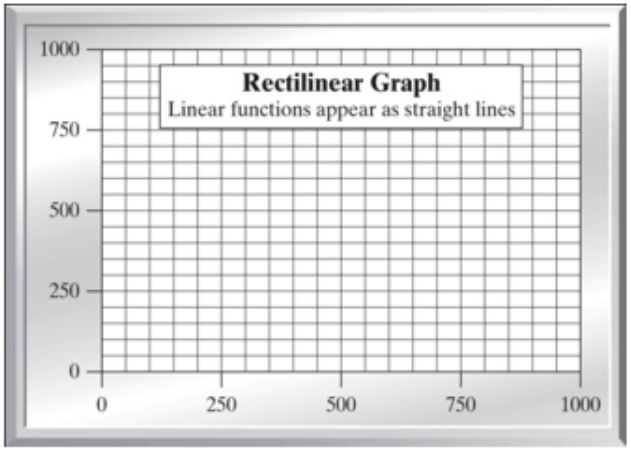
TRENDLINE MODELS

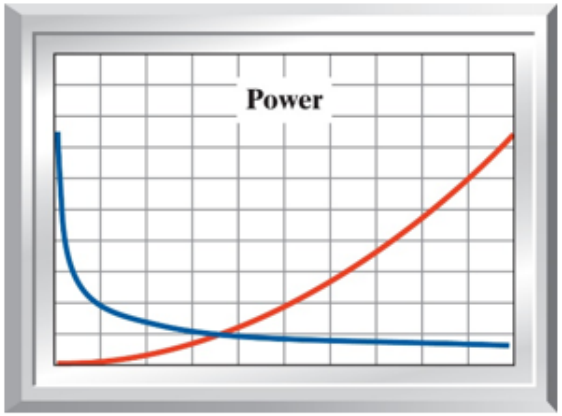
Using `polyfit()` in MATLAB to determine the trend line to apply to experimental data sets.

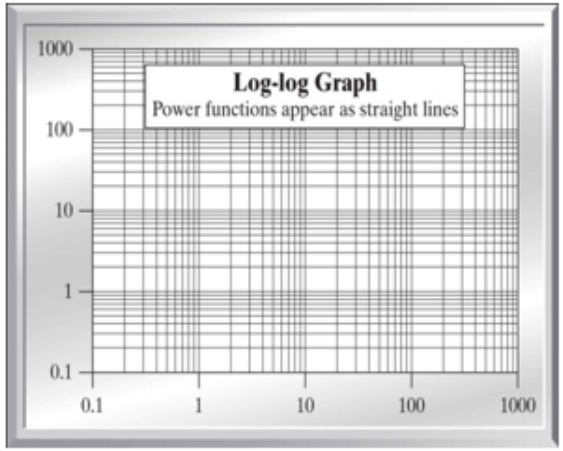
Linear Models

Data Form	Graphical Example
$y = m x + b$ Defined value (b) at x = 0 Data appear as a linear (straight) line	
POLYFIT	**Appears linear on…**

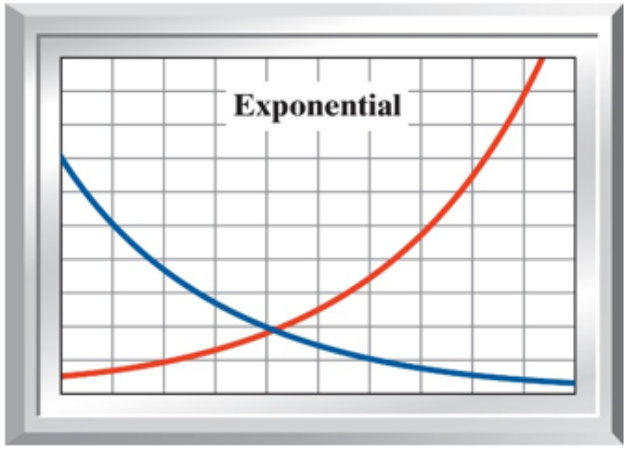
`C = polyfit(x,y,1)`
 	
C = [m, b]
`m = C(1)`
`b = C(2)`
	

Power Models

Data Form	Graphical Example
$y = b\,x^m$ **Positive m** Value of zero at x = 0 **Negative m** Value of infinity at x = 0	
POLYFIT	**Appears linear on…**

`C = polyfit(log10(x),log10(y),1)`
 	
C = [m, log10(b))]
`m = C(1)`
`b = 10^C(2)`
	

Exponential Models

Data Form	Graphical Example
$y = b\,e^{mx}$ **Positive m** Value of zero at x = 0 **Negative m** Value of infinity at x = 0	
POLYFIT	**Appears linear on…**

`C = polyfit(x, log(y),1)`
 	
C = [m, log(b)]
`m = C(1)`
`b = exp(C(2))`