I suggest you use Winplot (See Blackboard Links) or some other graphing SW to create your graphs and paste them into your document. A cruder method is to create a table of values and, using Excel or an equivalent, to create scatterplots with connected points. They can then be inserted as above.

A less desirable technique is to create the plots manually and then scan to JPEG images for insertion in your document.

1. Sketch a graph of the following equations
   1. 
   2. y = |x| + 2
   3. 
2. Find the equation (in the form ) of a line through points (1, 7) and (-3,2)
3. The relationship between air temperature T (in °F) and altitude *h* (in feet above seal level) is approximately linear up to an altitude of 20,000 feet. If the temperature at seal level is 60°, an increase of 5,000 feet in altitude lowers the air temperature to 18°.
   1. Express *T* in terms of *h*, and sketch the graph on an *hT*- coordinate system.
   2. Using the equation determine the altitude at which the temperature is 0 °F?
4. A certain country taxes the first $20,000 of an individual’s income at the rate of 15%, and all income over $20,000 at 20%. Find a piecewise-defined function *T* that specifies the total tax on an income of *x* dollars. ( A graph of the function is not necessary)
5. Graph the function . Identify any asymptotic behavior.