Java Exercises: Thursday

**Exercise 1:** Draw the figure below using the `figure` package.

![Graph of a function](image)

**Exercise 2:** Use the `figure` package to draw the graph of the function \( f(x) = e^{-x^2/2} \sin(2x) \) in the viewing rectangle \(-2 \leq x \leq 2\) and \(-2 \leq y \leq 2\) along with a grid. Draw the tangent line at a point and the point. Allow the point and tangent line to be dragged along the graph.

**Exercise 3:** Convert both of the figures from the exercises above into applets and construct HTML pages to view them.