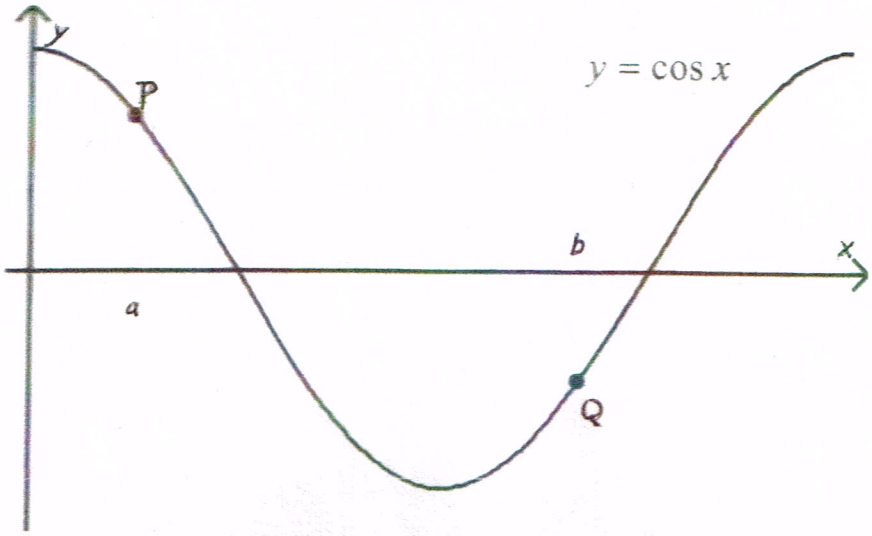

1) The figure above identifies two points P and Q. Write the coordinates of P and Q in terms of *a* and *b*.

2) Write an expression for the slope of the line segment joining P and Q. Your answer should be in terms of *a* and *b*.

3) Evaluate your expression for slope of $a = \frac{\pi}{4}$, $b = \frac{4\pi}{3}$. Write answer in exact form and in decimal form, with two decimal places. Simplify completely.

4) Write the equation of the line $\overline{PQ}$ twice, with exact coefficients and with decimal coefficients.

5) With your calculator, graph both y = cos *x* and your line. Be sure that your line intersects P and Q. Provide a printout of your graph.