(1) Solve $|4x - 4| < .1$

(2) Solve $|2x + 1| < .2$

(3) For $x \geq 0$, let $h(x) = \max(\sqrt{x}, x)$.
   (a) Write $h(x)$ in case form.
   (b) Sketch its graph.

(4) Sketch the graphs of the following curves.
   (a) $y = 2^x$
   (b) $y = (\frac{1}{2})^x$
   (c) $\sin x$
   (d) $\cos x$
   (e) $\arctan x$
   (f) $\frac{x^2 - 9}{x + 3}$
(5) What is the maximum point of \( y = \frac{1}{x^2 + 8x + 17} \)?

(6) Factor
(a) \( x^2 + 2x - 3 \)
(b) \( x^2 + 2x - 1 \)
(c) \( x^2 + 2x + 2 \)
(d) \( x^3 - 125 \)
(e) \( x^3 + 1 \)
(f) \( 8x^3 + 27 \)

(7) Graph \( y = \cos \frac{1}{x} \).