Trig Functions

1. Solve for $x$: $\cos(x) = .9$.

2. Write a formula for a sine function that has an amplitude of 3, a period of 4 and a value of 0 at $t = 0$.

3. What is the period of $\sin(2x + 1)$?

4. Make rough sketches of the following functions. Try these without a calculator first! These aren’t easy. But they’re fun.

   (a) $2\sin(x)$
   (b) $\sin(2^x)$
   (c) $(\sin(x))^2$
   (d) $\sin(x^2)$
   (e) $x^2\sin(x)$