So you first calculate the estimated population variance. Different people call estimated variance different things. I call it “est 2” (because it’s usually estimated from the data) and it’s computed by,

est 2 = SS/df

where SS (“sums of squares”) is,

SS = x2 – (x)2/n

and

df (“degrees of freedom”) is,

df = n-1

here “n” is the number of scores you have.

Once you've gotten est 2, you compute the standard error, which, basically, is the standard deviation of the distribution of sample means. I call the standard error “est M” and it’s computed by,

est M = square root (est 2/n)

To figure out how many standard errors something is, you take the difference you're interested in (generally the mean minus some constant, (M – k), where k is often zero) and then the number of standard errors corresponding to the difference is, (M – k)/est M.

Make sense?