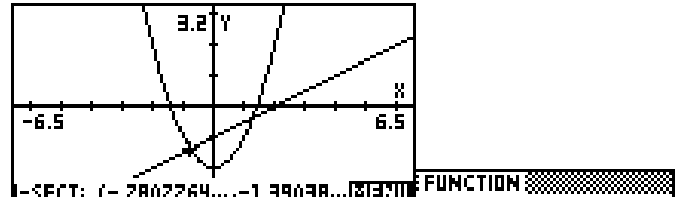


Using Plot Values To Find Areas

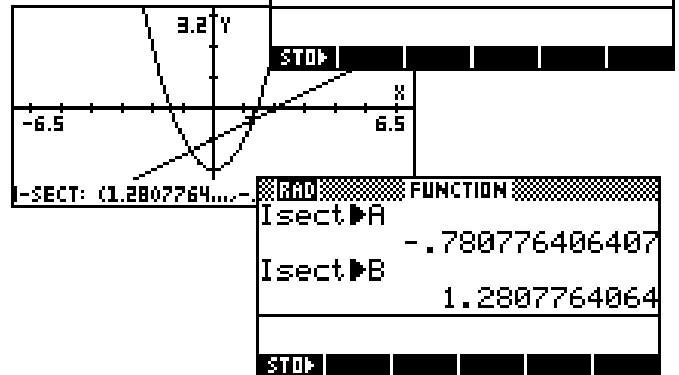
Suppose we want to find the area between $f(x) = x^2 - 2$ and $g(x) = 0.5x - 1$ from $x = -2$ to the first positive intersection of the two graphs.

From the hand shaded screenshot shown above right it can be seen that to find the area we need to split it into two sections, with the boundaries being -2 and the two intersections.

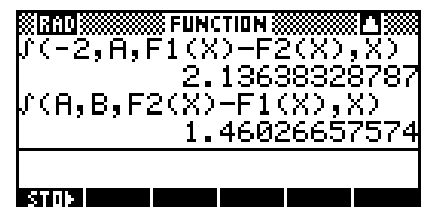
After finding the first intersection using **FCN Intersection** we change into the HOME view and store the results into memory variable A.



We then do the same thing for the second intersection, storing the result into B.



We can now calculate the area in the HOME view, using $f_1 - f_2$ for the first and $f_2 - f_1$ for the second. Use **COPY** to duplicate the first integral and edit it to adjust the functions and limits.



Finally, **COPY** the two solutions and add them to give the final answer.