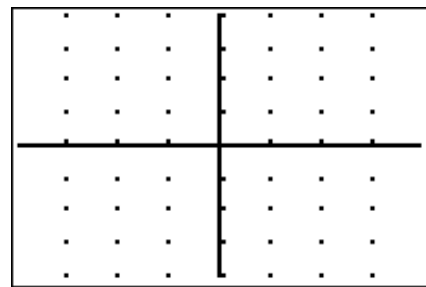


Discovering Inverse Trig Functions

Graph $y=2x+1$ in a zoom 4.(Decimal) window.
Record a picture of your graph.

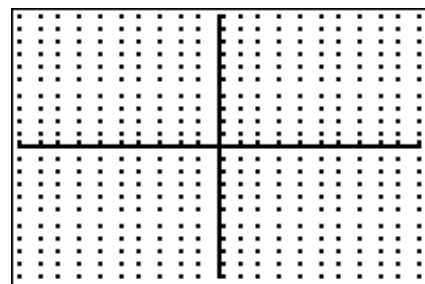
Add the line $y=x$ to your calculator and then try to draw the inverse function.

Solve the equation for y . Does it agree with your inverse function?



Graph $y_1 = (x + 5)^2$ in a zoom 6(Standard) window. Record a copy of it at the right.

Add the line $y=x$ to the picture. Try to sketch the inverse function by reflecting the graph over the line $y=x$.



Solve for the inverse function.

It is possible to graph just part of y_1 so when the drawing of the inverse function will be a function too. Enter $y_1 = ((x + 5)^2)(x \geq 0)$. Now ask the calculator to draw the inverse function.

Enter $y_1 = \sin(x)$. Graph this function in a zoom 7.(Trig) window. Record a graph of this function.

Enter the line $y = x$. Can you picture the inverse function? Try drawing the inverse function.

Restrict the domain by entering $y_1 = (\sin(x))(x \geq \text{---})(x \leq \text{---})$.

Draw the inverse function with the calculator.

To solve it analytically we do the same as before.

Repeat the same activity with $y= \cos (x)$ and $y = \tan (x)$.

