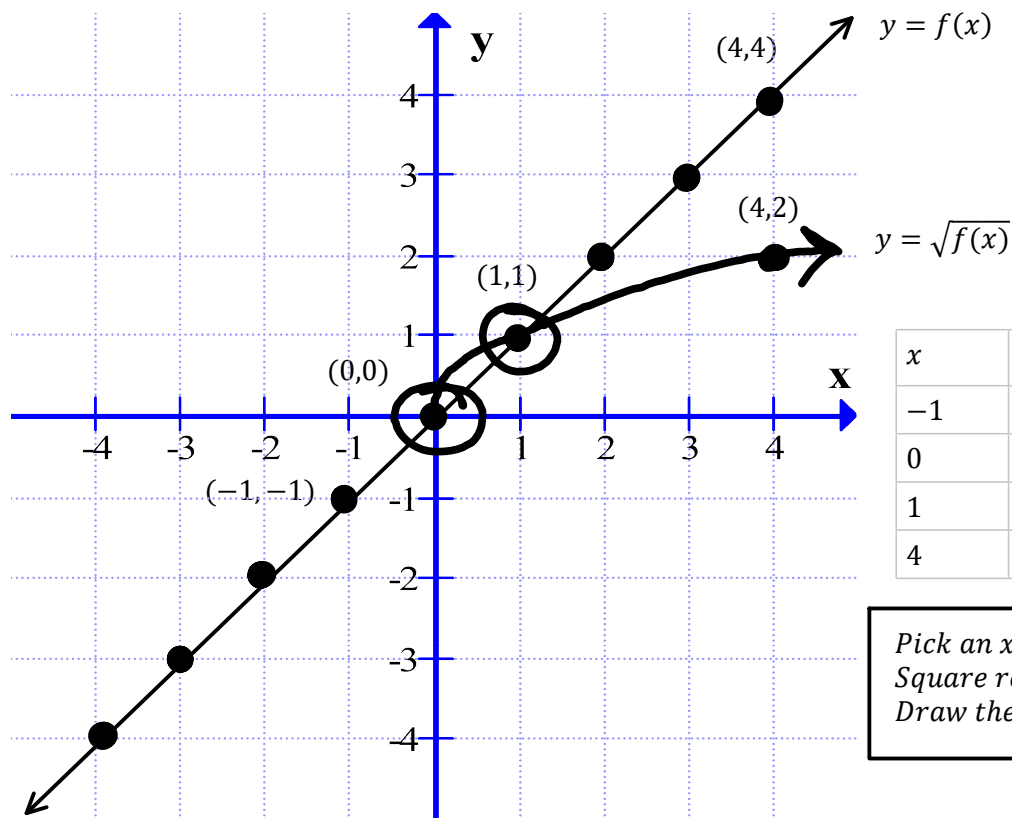


C12 - 2.4 - Square Root Functions Notes

Draw the graph of \sqrt{x} from the graph of $f(x)$ and label the invariant points and state the domain and range.



x	$f(x)$	$\sqrt{f(x)}$
-1	-1	und
0	0	0
1	1	1
4	4	2

Pick an x value on $f(x)$.
Square root the y - value
Draw the new point.

$y = x$

x	$y = f(x)$
-1	-1
0	0
1	1
4	4

Invariant Points:

- (0,0)
- (1,1)

$y = \sqrt{x}$

x	$\sqrt{f(x)}$
-1	und
0	0
1	1
4	2

Domain: $x \in \mathbb{R}$

Range: $y \in \mathbb{R}$

Domain: $x \geq 0$

Range: $y \geq 0$

Remember: Cant square root a negative

Remember: Choose x-values whose y values can square root evenly if possible

Remember: Invariant points are on the line $y = 1$ and $y = 0$

Remember: Any point with a y - value of "1" or "0" is invariant. $(x, 1)$ and $(x, 0)$