Parent Functions

There are five functions which you should be familiar with. You have seen some of them before; others are new. The simplest, most basic of each is called the **parent function.**

Name of Function	Equation of Parent Function	Sketch of Graph	Domain	Range
linear function	f(x)=x	-10 -2 -6 -4 -2 2 4 6 8 10 -4 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6	{xeR}	{yer}
quadratic function	$f(x) = x^2$	-10 -s -6 -4 -2 2 4 6 8 10 -4 -6 -6 -6 -6 -6 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10	{x∈R}	{yer y≥o}
square root function	$f(x) = \sqrt{x}$	-10 -1 -5 -6 -1 -2 -2 -1 -6 -5 -10	{x < R x \ \cdot 0}	{y ∈R y ≥0}
reciprocal function	$f(x) = \frac{1}{x}$	10 5 6 4 4 2 1 1 1 1	{xeR x ≠ 0}	{yeR y≠o}
absolute value function	f(x)= x (represents the distance from 0)	-10 -8 -6 -4 -2 2 4 6 8 10 -4 -6 -8 10 10	{× ∈ R }	EyeR y≥o3