

### Parent Functions

| Parent Function  | Graph | Parent Function  | Graph |
|--|-------|--|-------|
| <b>Linear</b><br>$y=x$<br>Domain: $(-\infty, \infty)$<br>Range: $(-\infty, \infty)$<br>Symmetry: Odd Origin                                      |       | <b>Absolute Value</b><br>$y= x $<br>Domain: $(-\infty, \infty)$<br>Range: $[0, \infty)$<br>Symmetry: Even Y-axis                         |       |
| <b>Quadratic</b><br>$y=x^2$<br>Domain: $(-\infty, \infty)$<br>Range: $[0, \infty)$<br>Symmetry: Even Y-axis                                      |       | <b>Radical</b><br>$y=\sqrt{x}$<br>Domain: $[0, \infty)$<br>Range: $[0, \infty)$<br>Symmetry: Neither                                     |       |
| <b>Cubic</b><br>$y=x^3$<br>Domain: $(-\infty, \infty)$<br>Range: $(-\infty, \infty)$<br>Symmetry: Odd Origin                                     |       | <b>Cube Root</b><br>$y=\sqrt[3]{x}$<br>Domain: $(-\infty, \infty)$<br>Range: $(-\infty, \infty)$<br>Symmetry: Odd Origin                 |       |
| <b>Exponential</b><br>$y=b^x, b>1$<br>Domain: $(-\infty, \infty)$<br>Range: $(0, \infty)$<br>Symmetry: Neither                                   |       | <b>Log</b><br>$y=\log_b x, b>1$<br>Domain: $(0, \infty)$<br>Range: $(-\infty, \infty)$<br>Symmetry: Neither                              |       |
| <b>Rational(Inverse)</b><br>$y=1/x$<br>Domain: $(-\infty, 0) \cup (0, \infty)$<br>Range: $(-\infty, 0) \cup (0, \infty)$<br>Symmetry: Odd Origin |       | <b>Rational(InverseSquared)</b><br>$y=1/x^2$<br>Domain: $(-\infty, 0) \cup (0, \infty)$<br>Range: $(0, \infty)$<br>Symmetry: Even Y-axis |       |
| <b>Greatest Integer</b><br>$y=int(x)=[x]$<br>Domain: $(-\infty, \infty)$<br>Range: $\{y: y \in \mathbb{Z}\}$ (integers)<br>Symmetry: Neither     |       | <b>Constant</b><br>$y=C$ (in this graph $y=2$ )<br>Domain: $(-\infty, \infty)$<br>Range: $\{y: y=C\}$<br>Symmetry: Even Y-axis           |       |