

Vocabulary Toolkit

	Term	Definition / Additional Information
4.2 T	Asymptote	A line that a curve approaches. A curve will never touch a <i>vertical asymptote</i> . A graph can (and often will) touch and even cross <i>horizontal asymptotes</i> . These are also known as end behavior asymptotes, because horizontal asymptotes indicate general behavior far off to the sides of the graph.
4.5 T	Even Function	A function that is: <ul style="list-style-type: none"> • symmetric about the y-axis (reflects over the line $x = 0$ onto itself) • output is the same for both x and $-x$, or $f(-x) = f(x)$ • if the point (a, b) satisfies the function, then so does the point $(-a, b)$
4.5 T	Odd Function	A function that is: <ul style="list-style-type: none"> • symmetric about the origin (rotates 180° about the origin onto itself OR reflects over both the x & y-axis onto itself) • output is the opposite for x and $-x$, or $f(-x) = -f(x)$ • if the point (a, b) satisfies the function, then so does the point $(-a, -b)$
4.4 T	Proper Rational Expression	A rational expression where the degree of the numerator is less than the degree of the denominator.
4.3 T	Rational Function	Any function, $f(x)$, that can be written in the form $f(x) = \frac{P(x)}{Q(x)}$ where P and Q are polynomials in x , and Q is not the zero polynomial.
4.3 T	Rational Number	Any number that can be written as a fraction $\frac{a}{b}$ where a and b are integers and $b \neq 0$.