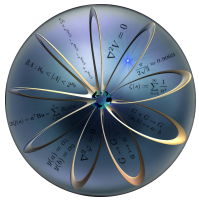

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very ample

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An invertible sheaf $\mathfrak{L}$ on a scheme X over a field k is called *very ample* if (1) at each point $x \in X$, there is a global section $s \in \mathfrak{L}(X)$ not vanishing at x, and (2) for each pair of points $x, y \in X$, there is a global section $s \in \mathfrak{L}(X)$ such that s vanishes at exactly one of x and y.

Equivalently, $\mathfrak{L}$ is very ample if there is an embedding $f : X \to \mathbb{P}^n$ such that $f^*\mathcal{O}(1) = \mathfrak{L}$, that is, $\mathfrak{L}$ is the pullback of the tautological bundle on $\mathbb{P}^n$.

If k is algebraically closed, `http://planetmath.org/RiemannRochTheorem`Riemann-Roch shows that on a curve X, any invertible sheaf of degree greater than or equal to twice the genus of X is very ample.