Abstract: A g-dimensional abelian variety over the complex numbers is a special kind of complex torus C^g/L, where L is a lattice of rank 2g. The case g=1 is called an elliptic curve. This talk will mostly be expository, about using theta functions to construct meromorphic functions on abelian varieties, and the corresponding embeddings of abelian varieties into projective space. If time permits, I will conclude with a description of the Edwards model of elliptic curves, and its generalization to abelian surfaces in a recent collaboration between E. V. Flynn and myself.