

Mathematics for Computer Graphics: A Primer

Introduction

Computer graphics leverages a lot of mathematical techniques, particularly from linear algebra. This short primer provides an overview of the techniques we'll commonly use. Particular applications are reserved for the course materials.

Numbers

We'll call a single number a *scalar*, and we'll group collections of scalars into *vectors*, although we'll often give a vector different names based on its usage. For example, we'll often call a position in space a *coordinate*, a *location*, and even a *vertex*¹, but in all cases, we'll represent all the uses as a vector of some dimension.

¹Although strictly speaking, that's an incorrect usage. A vertex represented a collection of data associated with a point in space.