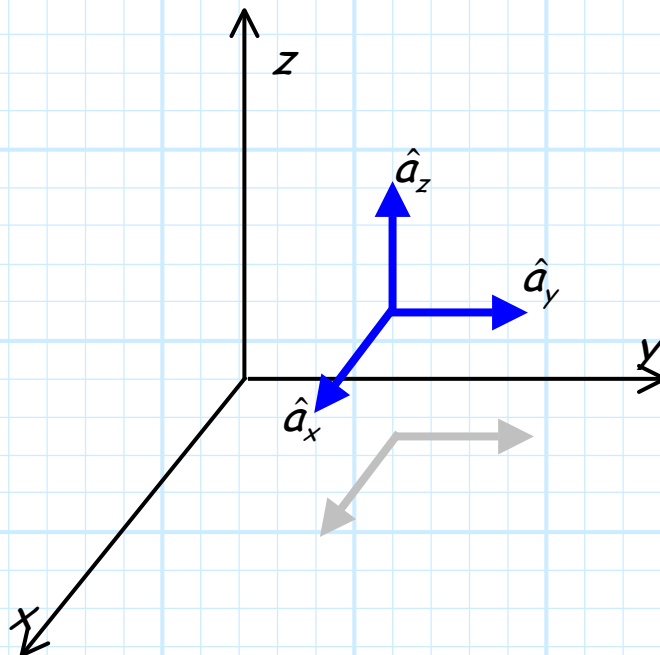


Cartesian Base Vectors

As the name implies, the Cartesian base **vectors** are related to the Cartesian **coordinates**.

Specifically, the unit vector \hat{a}_x points in the **direction of increasing x** . In other words, it points away from the y - z ($x=0$) plane.

Similarly, \hat{a}_y and \hat{a}_z point in the direction of **increasing y** and z , respectively.



We said that the directions of base vectors **generally** vary with location in space—Cartesian base vectors are the **exception!** Their directions are the same **regardless** of where you are in space.