



Scalar Multiplication of Vectors

Today's Standard

HSN.VM.B5 - (+) Multiply a vector by a scalar.

Cues	Notes
What is scalar multiplication?	Scalar multiplication involves multiplying each component of a vector by a scalar.
How does scalar multiplication affect a vector?	It changes the magnitude of the vector but not its direction.
Common misconceptions about scalar multiplication	Common misconceptions include thinking it changes direction or affects components differently.
Real-world applications	Applications include physics (force vectors), engineering (design models), and computer graphics (image transformations).

Summary

Scalar multiplication scales the magnitude of a vector uniformly without altering its direction, with applications in various fields.