Scalar Multiplication of Matrices

Today's Standard

HSN.VM.C7 - (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.

Real-World Applications for this Standard

Doubling payoffs in a game; Scaling pixel values in digital images; Adjusting financial models; Transforming geometric shapes; Modifying data sets in computer science

Today I Learned

Today, we learned about multiplying matrices by numbers, like doubling all the scores in a game. This helps us understand more about math and how it can be used in real life.

Common Stumbling Blocks

Some students might think that only one number in the matrix changes when you multiply. But really, all the numbers change. Others might think the shape of the matrix changes, but it stays the same size.

Quiz Me

- What happens when you multiply a matrix by 2?
- Does the size of the matrix change when you multiply by a number?
- Can you give an example of multiplying a matrix by 3?
- What do you multiply in a matrix when you use a scalar?
- Does multiplying a matrix by a number affect all its parts?

Help Me

Multiplying matrices by numbers can be like doubling the amount of something, like scores in a game. It's useful in many real-world situations, like changing picture sizes or adjusting financial data.