Watch. Practice. Understand. | Lesson 138

The Secret of Multiplying Matrices

Watch the matching video: https://www.youtube.com/watch?v=tvCjJVFxmpw

Practice focus: Matrix operations

Original extra practice matched to the listed lesson topic.

Name: _____ Date: _____ Show your reasoning and check units.

01 Let A = [[1,2],[3,4]] and B = [[2,0],[-1,5]]. Find A + B.

02 For the same A and B, find A - B.

03 For the same A and B, compute AB.

04 If A is 2 by 3 and B is 3 by 4, what are the dimensions of AB? Is BA defined?

Worked answers | Lesson 138

The Secret of Multiplying Matrices

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Practice focus: Matrix operations

Original extra practice matched to the listed lesson topic.

01 Let A = [[1,2],[3,4]] and B = [[2,0],[-1,5]]. Find A + B.

Add corresponding entries: [[3,2],[2,9]].

02 For the same A and B, find A - B.

Subtract corresponding entries: [[-1,2],[4,-1]].

03 For the same A and B, compute AB.

Row-column products give [[0,10],[2,20]].

04 If A is 2 by 3 and B is 3 by 4, what are the dimensions of AB? Is BA defined?

AB is 2 by 4. BA is not defined because its inner dimensions 4 and 2 differ.