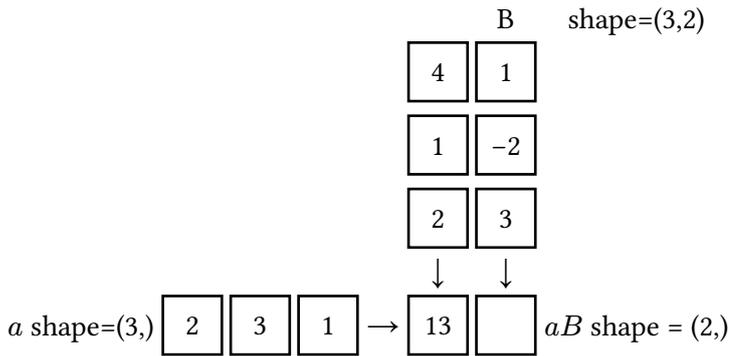
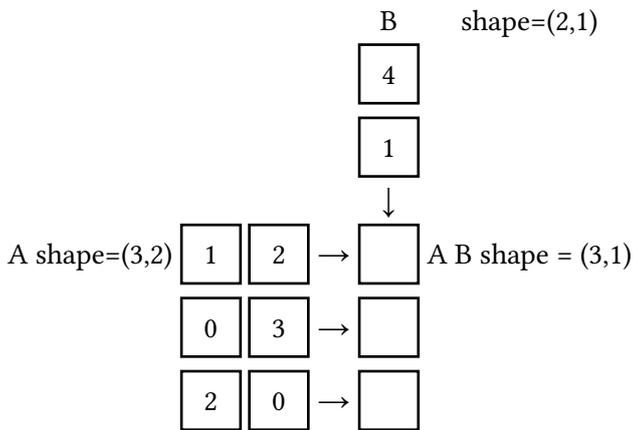


Matrix Multiplication is Dot Products



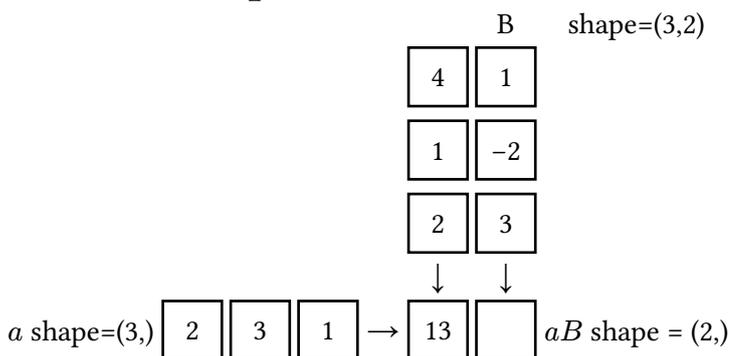
How can you tell that the result has shape (2,)?



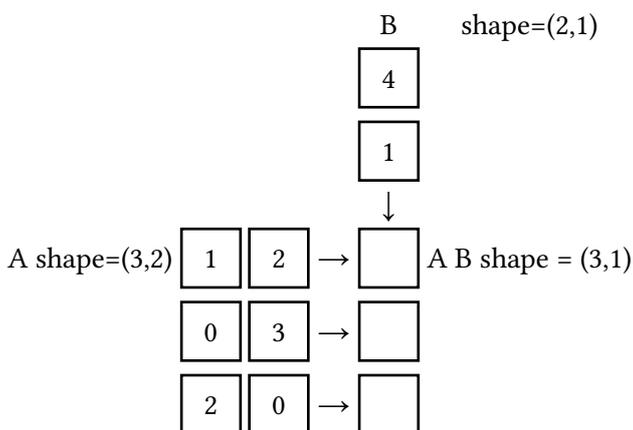
How many dot products do you compute to get the result? _____

If this were a model making a linear prediction on a dataset where each sample has 2 features, the **input** data is stored in (circle one) A B, and the **weights** are stored in (circle one) A B.

Matrix Multiplication is Dot Products



How can you tell that the result has shape (2,)?



How many dot products do you compute to get the result? _____

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Elo

This year's Superbowl is Seahawks (16-3) vs New England Patriots (17-3). Their Elo ratings are 1612 and 1581 respectively. Try the following calculations:

1. Divide each team's rating by 400: Seahawks: _____, Patriots: _____
2. Raise 10 to the power of each result: Seahawks: _____, Patriots: _____
3. Add the two results together: _____
4. Divide each result from step 2 by the sum from step 3: Seahawks: _____, Patriots: _____

Which team got the higher probability of winning?

Try again with Elo ratings of 1500 and 1500 (i.e., pretend you know nothing about either team). What do you notice?

How would you interpret this statement: "Opus 4.6 outperforms the industry's next-best model (OpenAI's GPT-5.2) by around 144 Elo points"

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