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1. Using the following data, calculate the input dimension (context vector) of the neural network in a given n-gram-based language model:

1 / 1 point

**Vocabulary = {I, hate, like, surgeons, surgery, football, vacations, broccoli}****Context size = 2**

- ☐ 1/4
- ☒ 16
- ☐ 10
- ☐ 4

 **Correct**

The input dimension is the product of vocabulary size and context size. With eight words and a context size of two, the input dimension is 16.

2. Consider the phrase, "I like watching movies and sports on..." Using the tri-gram model, what will be the context and predicted word(s) at 't=5'?

1 / 1 point

- ☐ Context: ["I", "like"]; Predicted word: "watching"
- ☐ Context: ["like", "watching"]; Predicted word: "and"
- ☐ Context: ["watching", "movies"]; Predicted word: "on"
- ☒ Context: ["watching", "movies"]; Predicted word: "and"

 **Correct**

In a tri-gram model, the prediction for words at position 't' is based on the positions 't-1' and 't-2'. At 't=5', the context is "watching movies", and the predicted target word is "and".

3. Which of the following set of codes converts the list of token indices into a PyTorch tensor?

1 / 1 point

- ☒ `x_c=torch.tensor(context)`
- ☐ `index_to_token[predicted_index]`
- ☐ `context=text_pipeline("Never gonna")`
- ☐ `out=model(x_c)`
- `predicted_index =torch.argmax(out,1)`

 **Correct**

That's right! While making a prediction, this set of code converts the list of token indices into a PyTorch tensor.