

# Convolutional Neural Network

LATEST SUBMISSION GRADE

100%

1. Consider the following code:

1 / 1 point

```
1 conv = nn.Conv2d(in_channels=2, out_channels=3, kernel_size=3)
```

How many kernels are there in total?

6

✓ Correct  
correct

2. Select the correct line of code to implement the following convolution operation :

1 / 1 point

$$Z = \sum_{k=1}^2 W_k * (X)_k + b_k$$

Diagram illustrating the convolution operation:

The equation is represented as:  $W_1 * (X)_1 + W_2 * (X)_2 = \text{Output}$

Where:

- $W_1$  is represented by a yellow rounded rectangle.
- $(X)_1$  is represented by a yellow square.
- $W_2$  is represented by a blue rounded rectangle.
- $(X)_2$  is represented by a blue square.
- The result is represented by a red square.

☒

```
1 conv = nn.Conv2d(in_channels=2, out_channels=1, kernel_size=:
```

☐

```
1 conv = nn.Conv2d(in_channels=1, out_channels=2, kernel_size=:
```

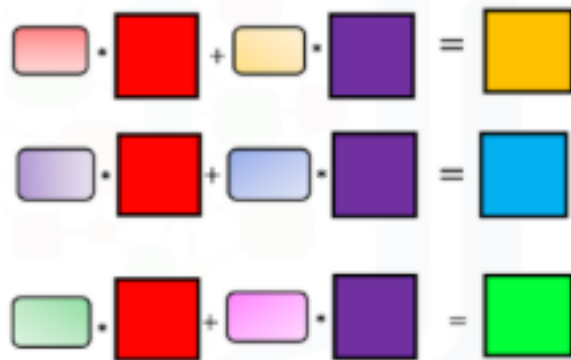
☐

```
1 conv = nn.Conv2d(in_channels=2, out_channels=2, kernel_size=:
```

✓ Correct  
correct

3. How many output channels does the following image have:

1 / 1 poi



3

✓ Correct  
correct