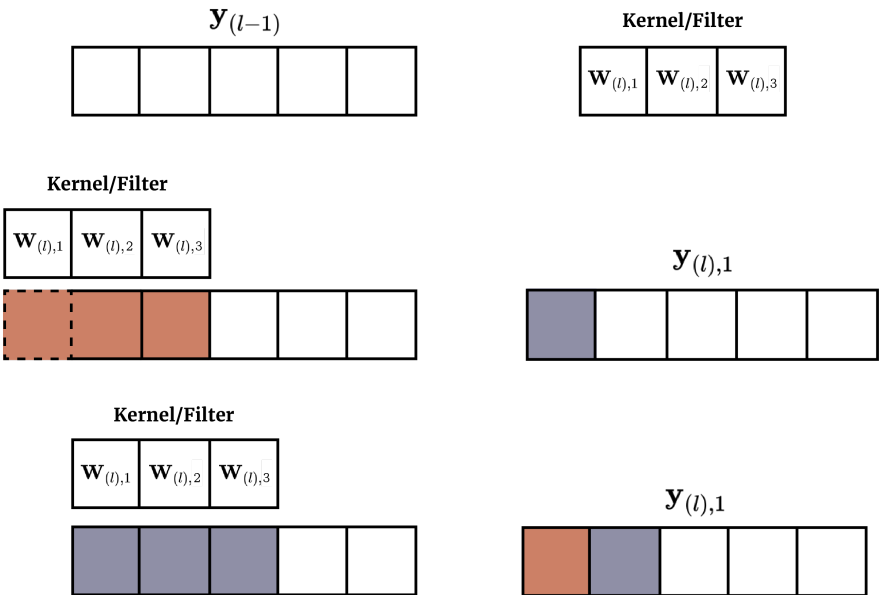
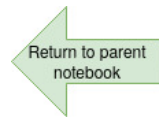


Conv 1D: One spatial dimension

Conv 1D: single feature

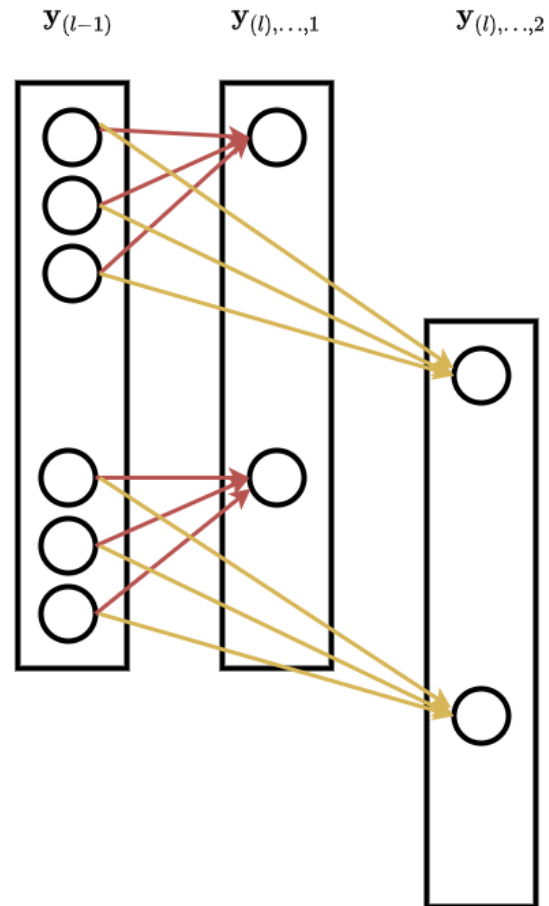
Conv 1D, single feature: sliding the filter



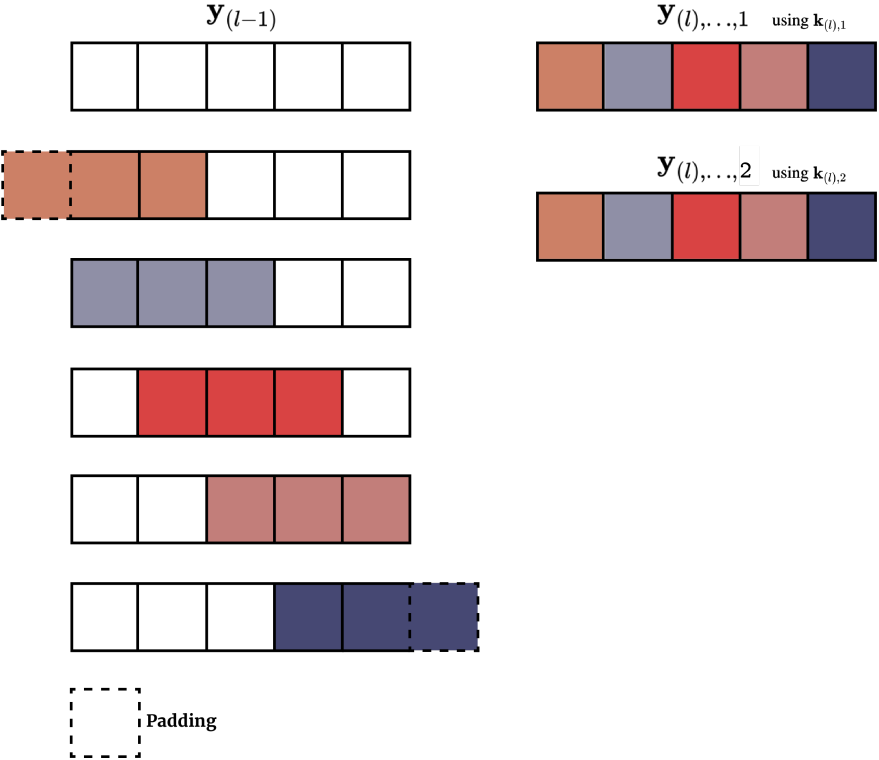


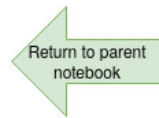
Conv 1D: single feature to multiple features

Conv 1D: single feature to multiple features



Conv 1D, single feature to multiple features



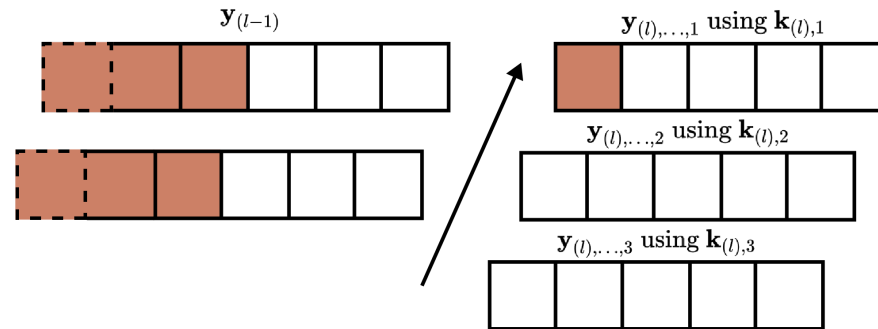


Conv 1D: Multiple features to multiple features

Let's illustrate how this works.

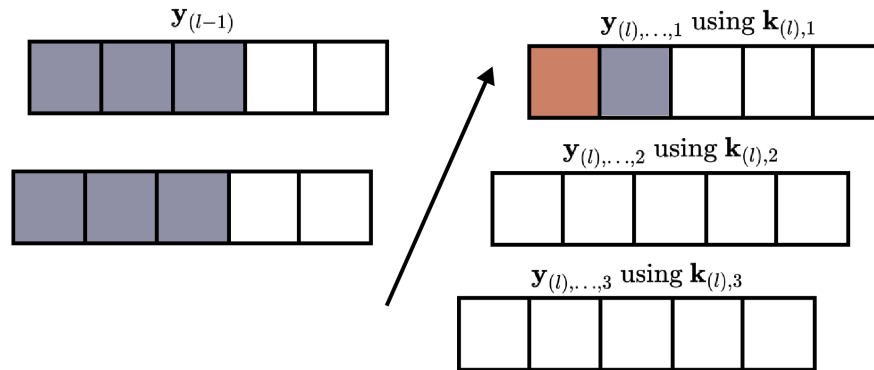
- Output feature 1
- Spatial location 1

Conv 1D: 2 features to 3 features: kernel 1



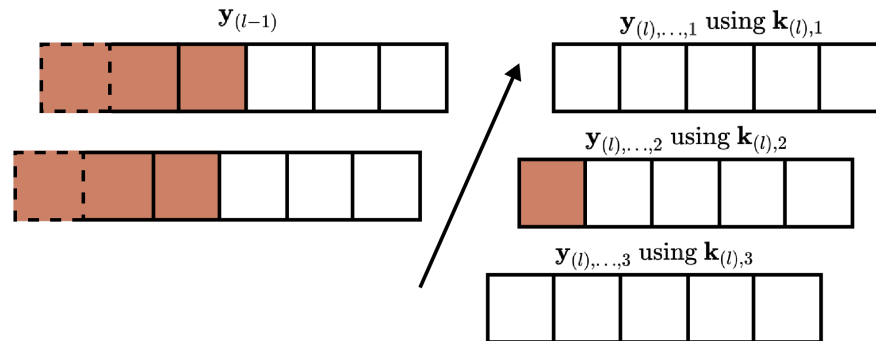
- Output feature 1
- Spatial location 2

Conv 1D: 2 features to 3 features: kernel 1



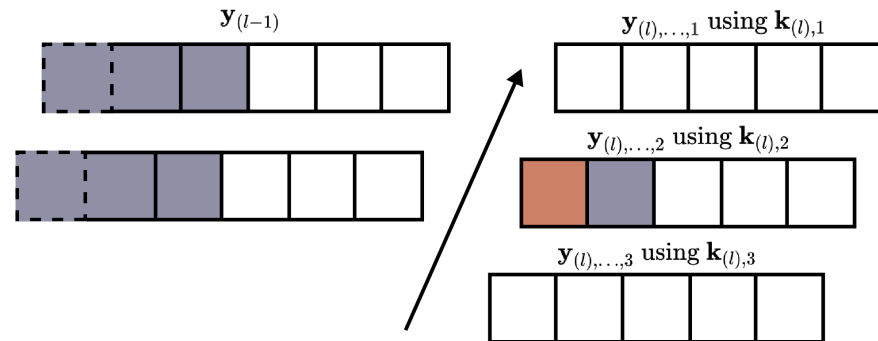
- Output feature 2
- Spatial location 1

Conv 1D: 2 features to 3 features: kernel 2



- Output feature 2
- Spatial location 2

Conv 1D: 2 features to 3 features: kernel 2

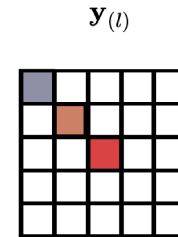
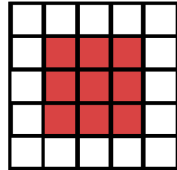
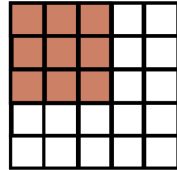
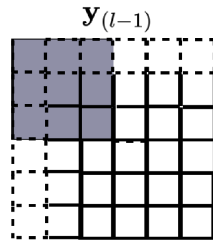




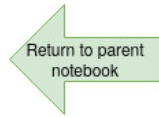
Conv 2D: Two spatial dimensions

Conv 2D: single feature to single feature

Conv 2D, single feature to single feature: padding at border

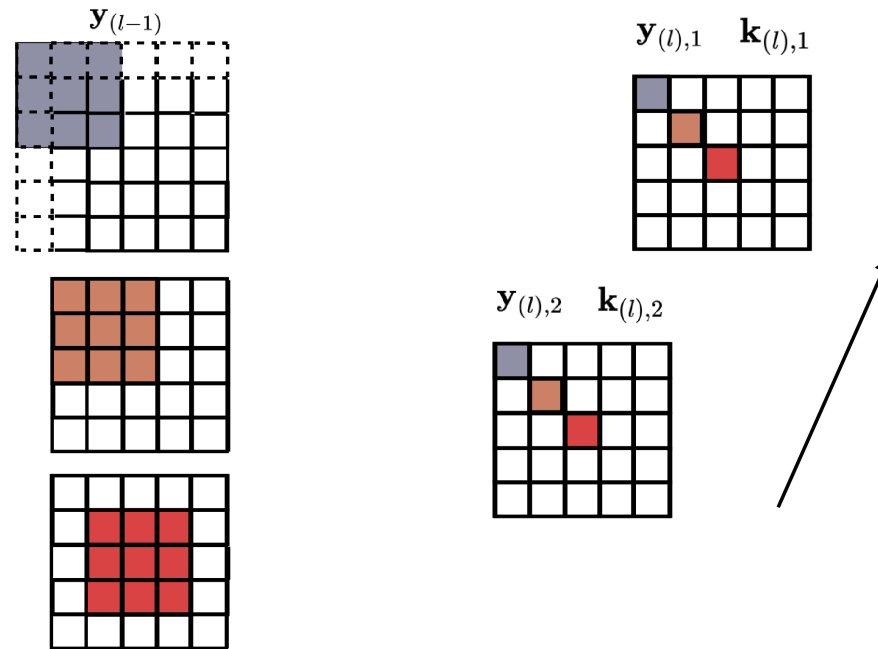


1



Conv 2D: single feature to multiple features

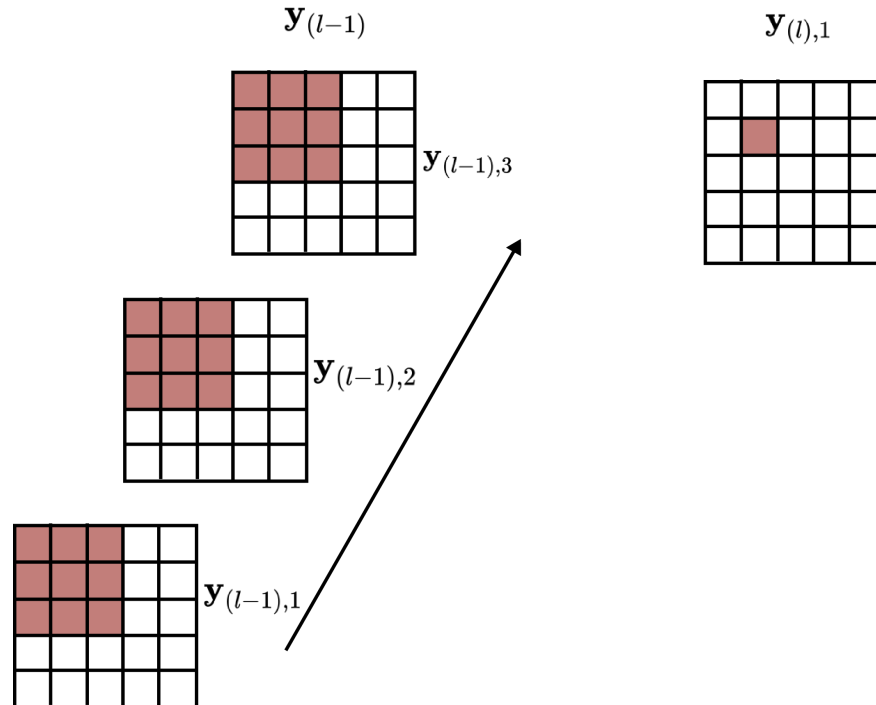
Conv 2D, single feature to multiple features: padding at border

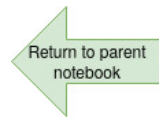




Conv 2D: multiple features to single feature

Conv 2D, multiple input, single output feature: padding at border





Conv 2D: multiple features to multiple features

Conv 2D, multiple input, multiple output features

