

## Module 4.3

The "receptive field" of an output Variable is the region of the input that influences its value. One way to calculate receptive field is to see which input indices have non-zero derivatives. This indicates that changes to these inputs impacted the output.

Consider the following code where `avgpool(vector, size)` takes a vector, splits it into groups of size `size`, and then averages them.

```
input = minitorch.rand((16,))  
output = avgpool(avgpool(input, 2), 4) # Size of average pool is second arg.  
output.shape  
output[1].backward()
```

1

1 point



What is the size of the receptive field of `output[1]`, i.e. non-zero values in `input.grad`?

Type your answer...