Module 4.1

Torch has a slice function that allowed you to copy out a "window" of a tensor. The forward operator of this function returns the slice of the tensor. For example, if we have a 28 x 28 tensor of an image we could slice out a 5 x 5 part of that image:

```
x = image[10:15, 5:10]
```

We can then use that slice in downstream functions for instance, lets multiply it by 2 and then sum up its values:

```
output = (2*x).sum()
```

This produces a scalar just like any other function. We can then backpropagate this value to our original inputs.

```
output.backward()
print(image.grad.shape) # (28, 28)
print(image.grad)
```

This implies that slice has a backward function. Intuitively what should that function look like?

1 1 point

How many values in image.grad are non-zero?

Type your answer...

2 1 point

What is the value of image.grad.sum() ?

Type your answer...