

Explanation of modified points (required)

TODO: 1. Write unipolar sigmoid function ($\lambda = 1$).

```
double y = 0.0;
```

```
double lambda = 1.0;
```

```
y = 1 / (1 + exp(-lambda * x));
```

TODO: 2. Calculate the inner product.

```
double inner = 0.0;
```

```
for(size_t i = 0; i < length; i++){
```

```
    inner = inner + v1[i] * v2[i];
```

```
}
```

TODO: 3. Calculate the error of the output layer for backpropagation.

```
mlp->output_errors[i] = diff * (output - (output * output));
```

```
error += (diff * diff) / 2.0;
```

TODO: 4. Update weight based on backpropagation.

```
weights[i][j] = weights[i][j] + learning_rate * errors[i] * inputs[j];
```

Discussion (if needed)

Comments (if needed)