

Here's my solution (I'm just showing **forward** method of the **Add** class):

```
def forward(self):
    x_value = self.inbound_nodes[0].value
    y_value = self.inbound_nodes[1].value
    self.value = x_value + y_value
```

While this looks simple, I want to show you why I used **x_value** and **y_value** from the **inbound_nodes** array. Let's take a look at the start with **Node**'s constructor:

```
class Node(object):
    def __init__(self, inbound_nodes=[]):
        # Node(s) from which this Node receives values.
        self.inbound_nodes = inbound_nodes
        # Removed everything else for brevity.
```

inbound_nodes are set when the **Node** is instantiated.

Of course, you weren't using **Node** directly, rather you used **Add**, which is a subclass of **Node**. **Add**'s constructor is responsible for passing the **inbound_nodes** to **Node**, which happens here:

```
class Add(Node):
    def __init__(self, x, y):
        Node.__init__(self, [x, y]) # calls Node's constructor
    ...
```

Lastly, there's the question of why **node.value** holds the value of the inputs. For each node of the **Input()** class, the nodes are set directly when you run **topological_sort**:

```
def topological_sort(feed_dict):
    ...
    if isinstance(n, Input):
        n.value = feed_dict[n]
```

```
...
```

For other classes, the value of `node.value` is set in the forward pass:

```
def forward_pass(output_node, sorted_nodes):  
    ...  
    for n in sorted_nodes:  
        n.forward()  
    ...
```

And that's it for addition!

Keep going to make **MiniFlow** more capable.

Bonus Challenges!

These are **ungraded** challenges as they are more of a test of your Python skills than neural network skills.

1. Can you make **Add** accept any number of inputs? Eg. **Add(x, y, z)**.
2. Can you make a **Mul** class that multiplies *n* inputs?