

```
In [18]: import json
import os
import matplotlib.pyplot as plt

train_dir = 'data/training'
```

<https://www.kaggle.com/c/abstraction-and-reasoning-challenge/data>
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data description

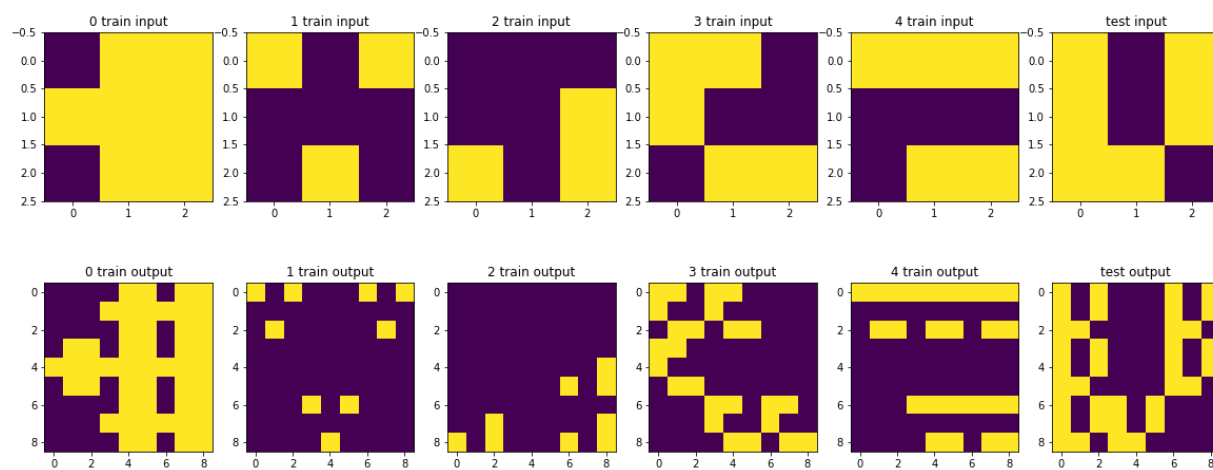
```
In [3]: train = []
test = []
```

```
In [9]: for file in os.listdir(train_dir):
    with open(os.path.join(train_dir, file)) as f:
        temp = json.load(f)
        train.append(temp['train'])
        test.append(temp['test'])
```

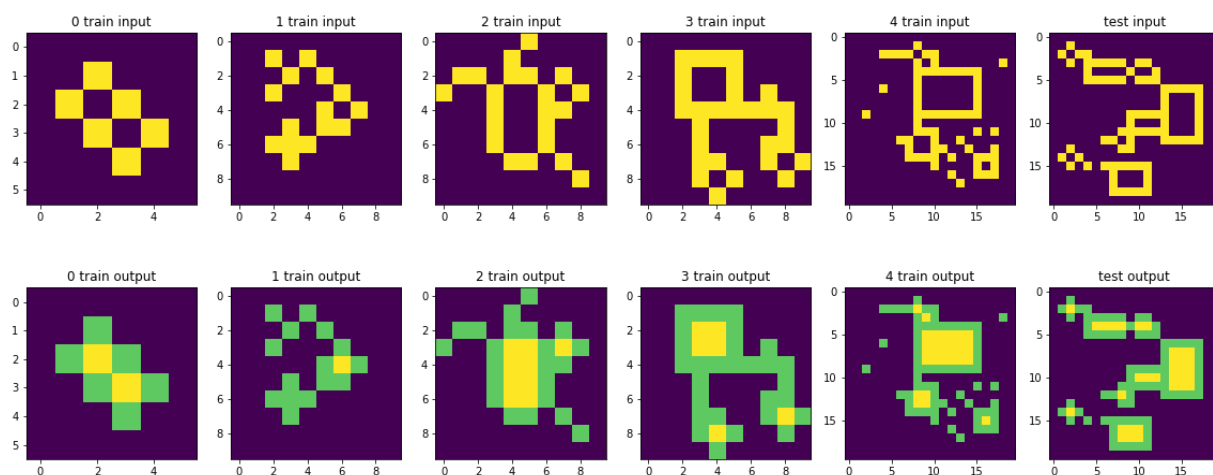
```
In [61]: train_input = []
train_output = []
for task in train:
    inputs = []
    outputs = []
    for pairs in task:
        inputs.append(pairs['input'])
        outputs.append(pairs['output'])
    train_input.append(inputs)
    train_output.append(outputs)
test_input = []
test_output = []
for task in test:
    for pairs in task:
        test_input.append(pairs['input'])
        test_output.append(pairs['output'])
```

```
In [80]: def display_task(index):
    inputs = train_input[index]
    outputs = train_output[index]
    size = len(inputs)
    fig, ax = plt.subplots(2, size+1, figsize=(4*size, 8))
    for i in range(size):
        ax[0][i].imshow(inputs[i])
        ax[0][i].set_title('{i} train input'.format(i=i))
        ax[1][i].imshow(outputs[i])
        ax[1][i].set_title('{i} train output'.format(i=i))
    ax[0][size].imshow(test_input[index])
    ax[0][size].set_title('test input')
    ax[1][size].imshow(test_output[index])
    ax[1][size].set_title('test output')
```

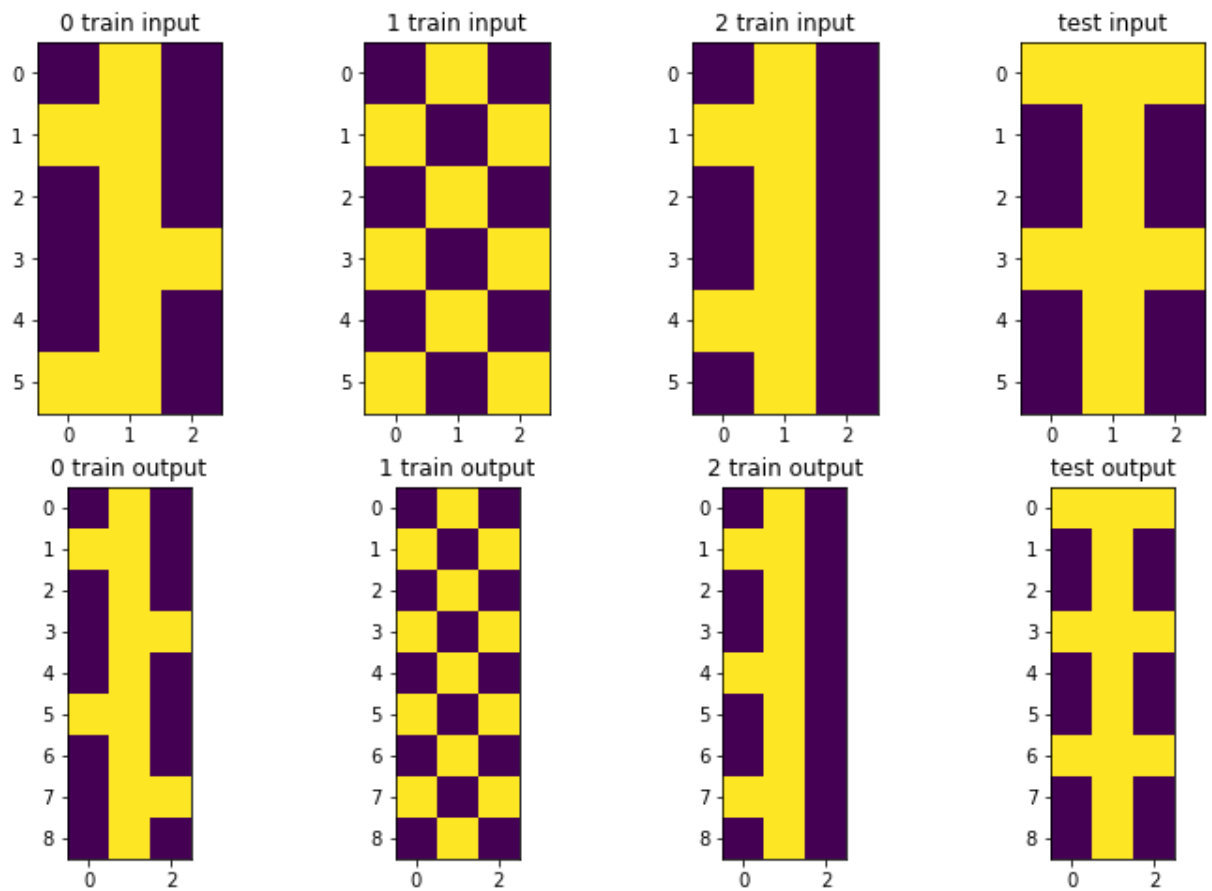
```
In [81]: display_task(0)
```



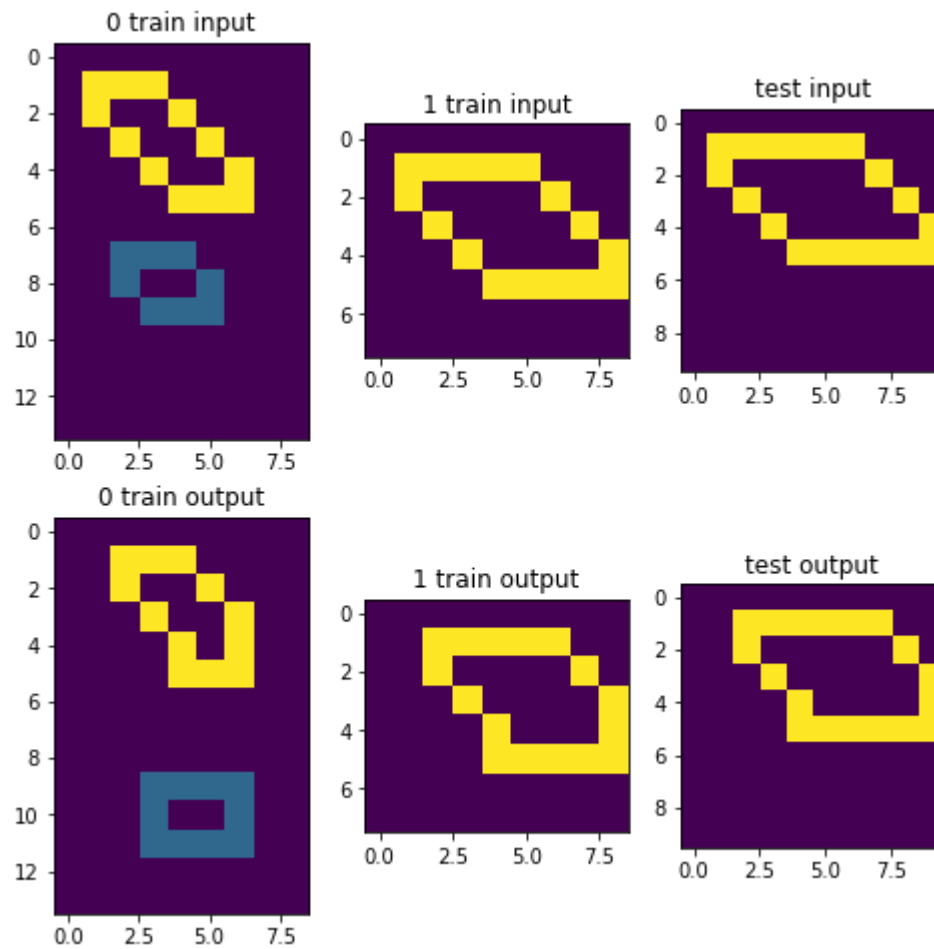
```
In [82]: display_task(1)
```

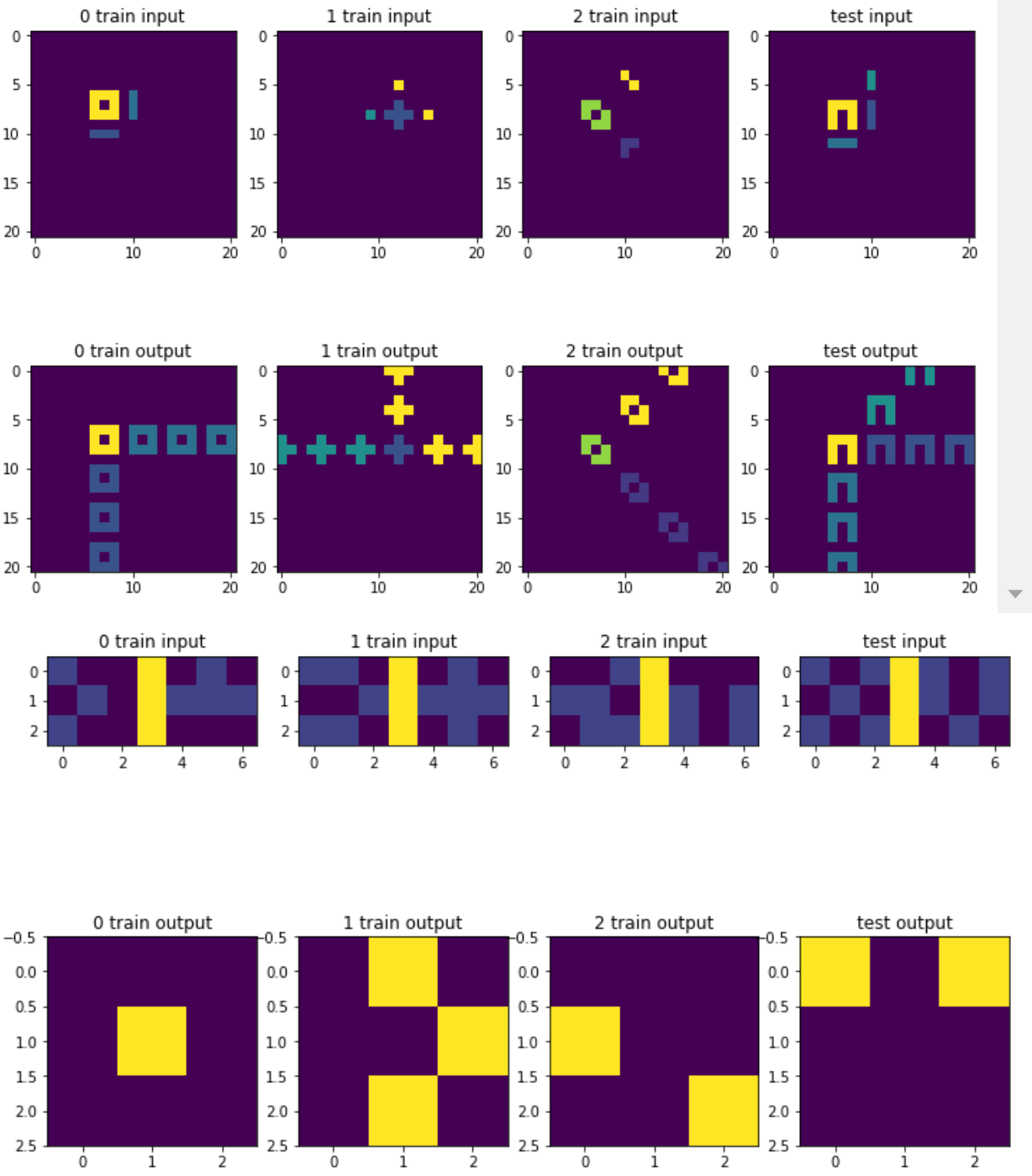


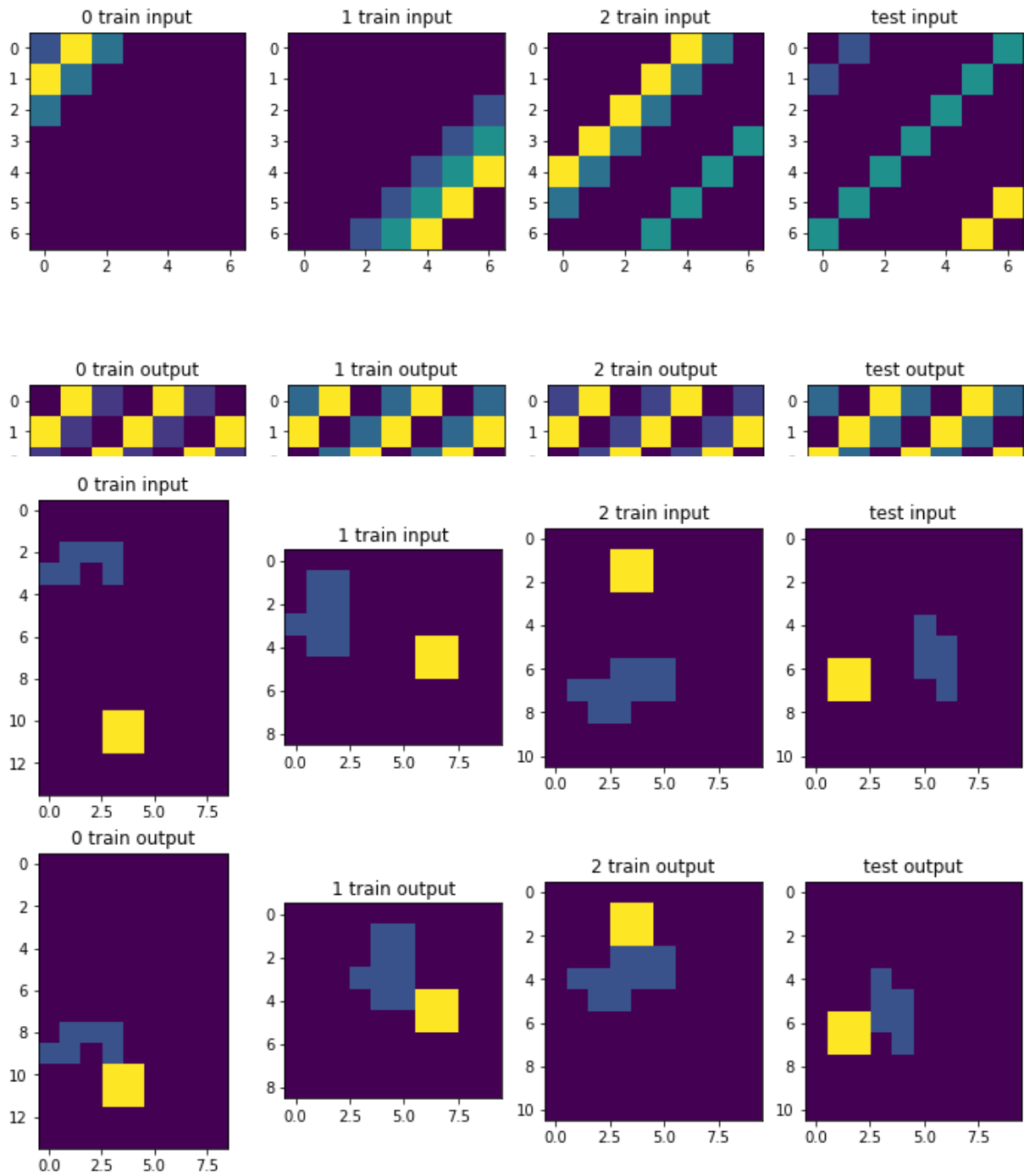
```
In [83]: display_task(2)
```

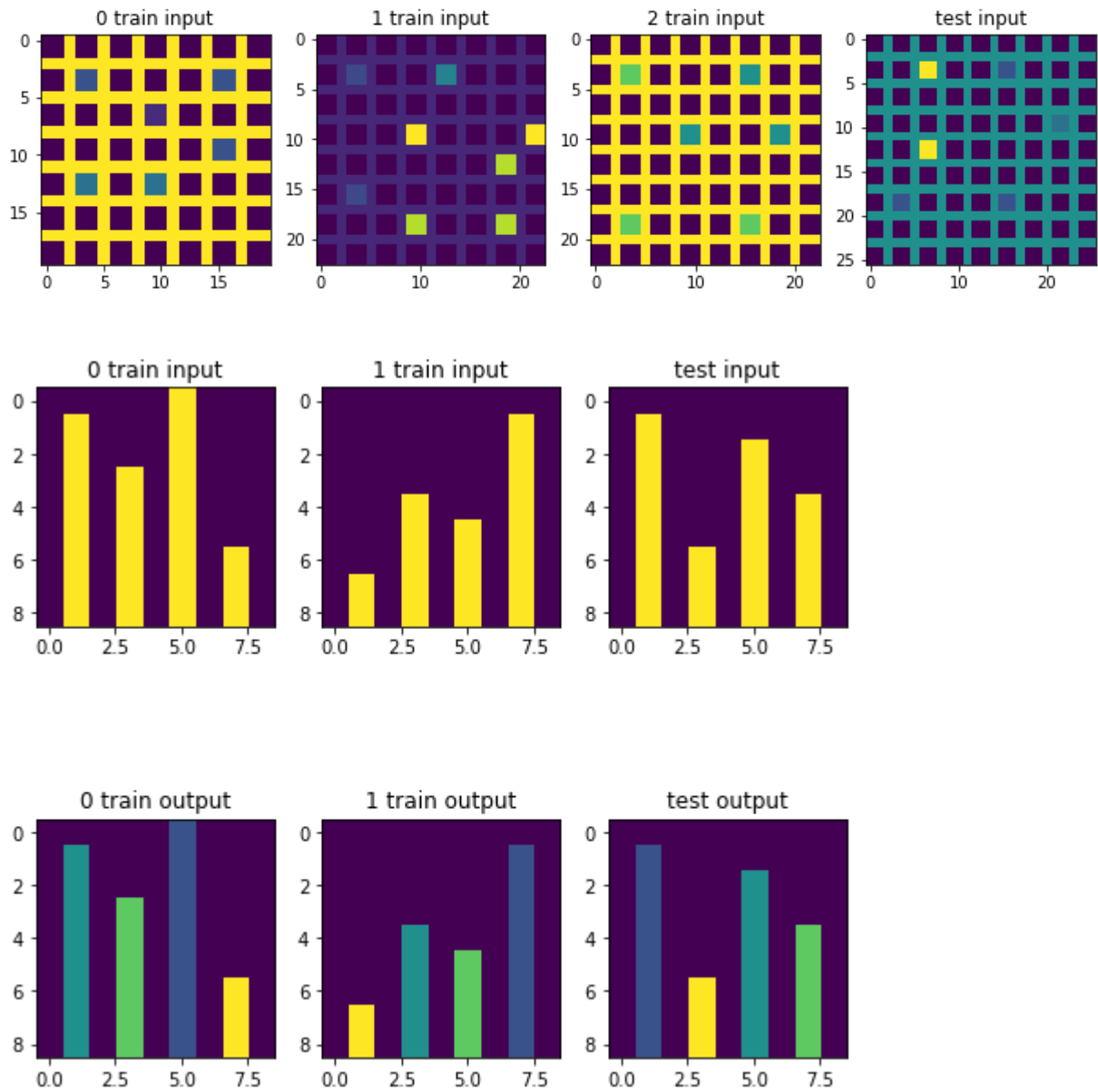


```
In [84]: for i in range(3, 10):  
         display_task(i)
```









In []: