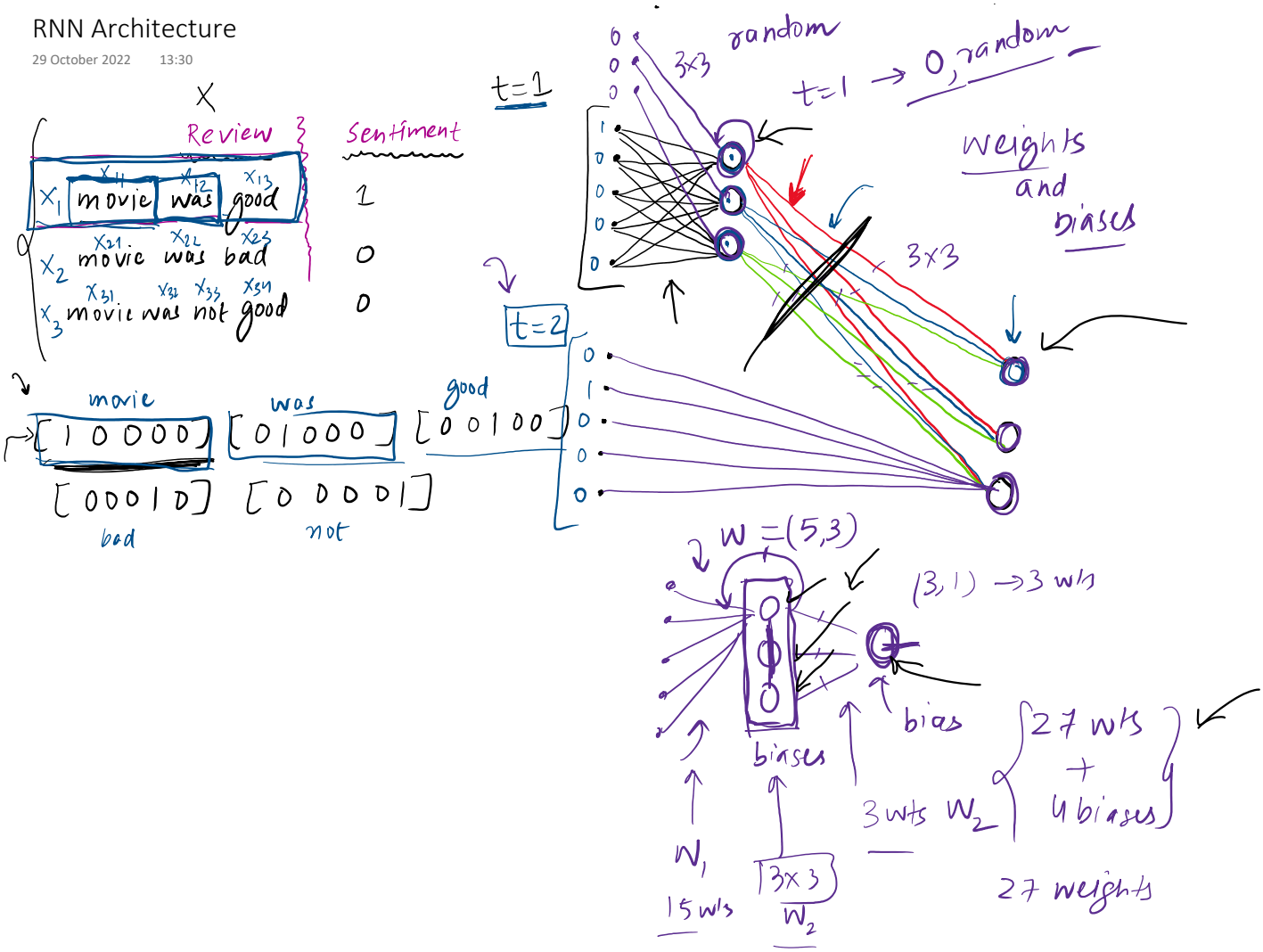
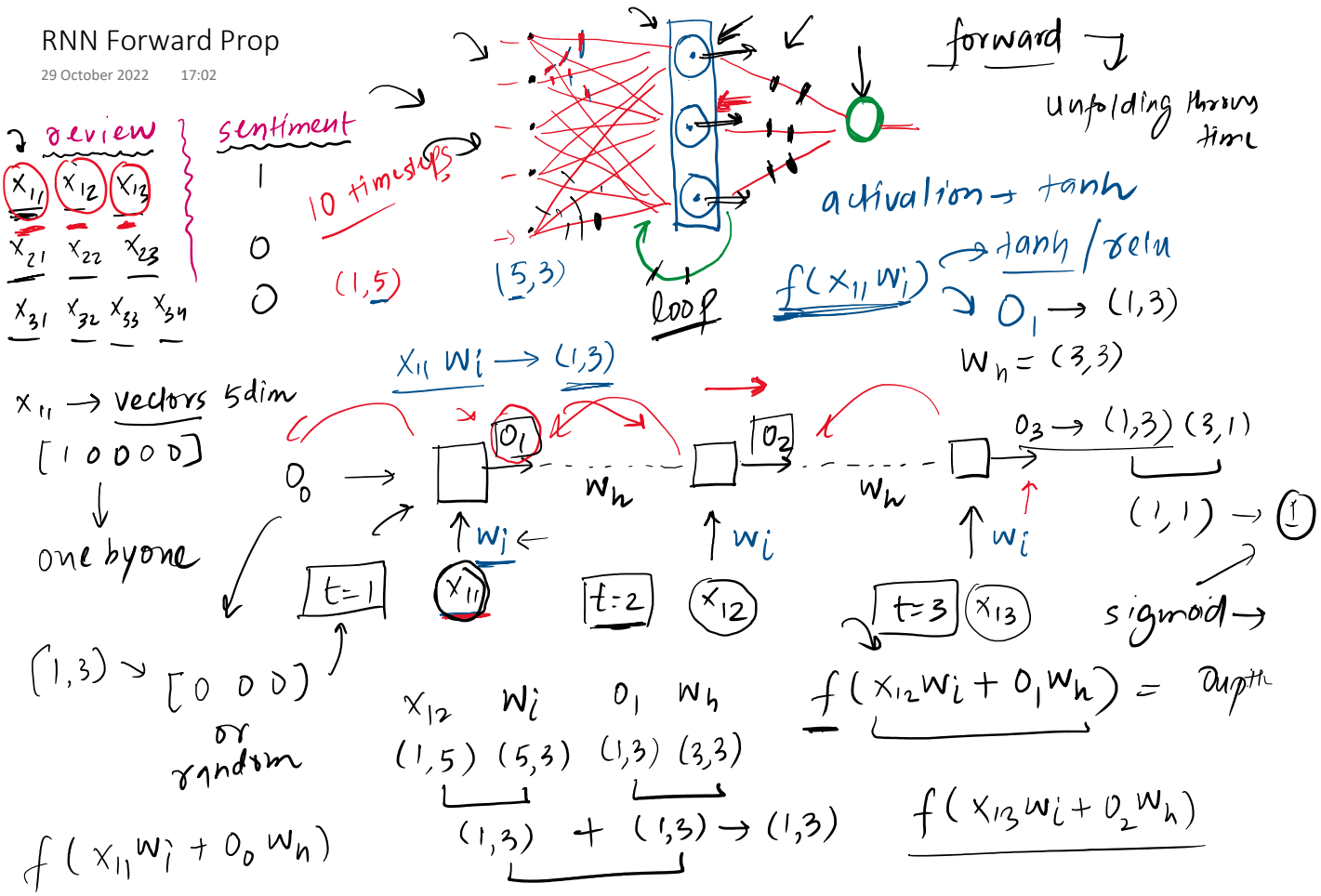
# RNN Architecture

29 October 2022 13:30



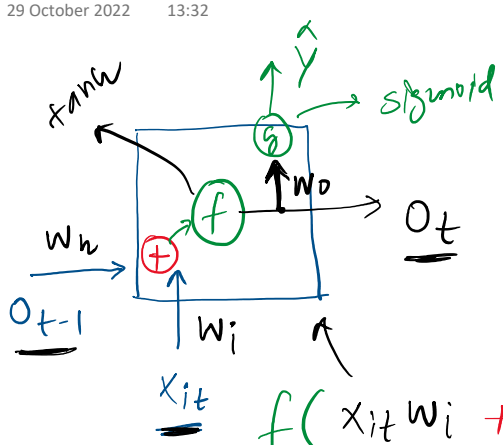
# RNN Forward Prop

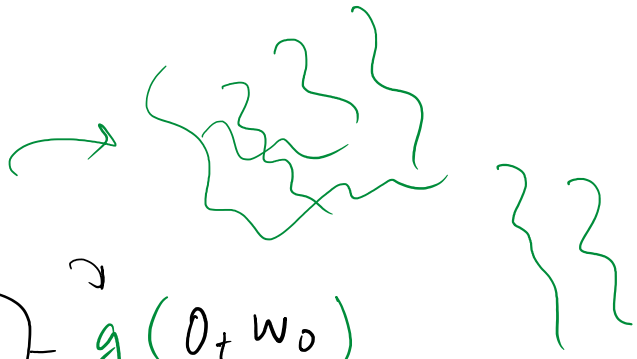
29 October 2022 17:02



# Simplified Representation

29 October 2022 13:32



$\hat{y} = g(O_t W_o)$

This wo is next layer wala weight.

$f(X_{it} W_i + O_{t-1} W_h) \rightarrow$ vector $\rightarrow O_t$

i = row #

t = time step

$X_{11} \rightarrow$

Hello how are you ?

```
x = nn.Embedding(324, embedding_dim=50)
y = nn.RNN(50, 64, batch_first=True)
z = nn.Linear(64, 324)

a = dataset[0][0].reshape(1,6)
print("shape of a:", a.shape)
b = x(a)
print("shape of b:", b.shape)
c, d = y(b)
print("shape of c:", c.shape)
print("shape of d:", d.shape)

e = z(d.squeeze(0))

print("shape of e:", e.shape)
```

what is c and d?