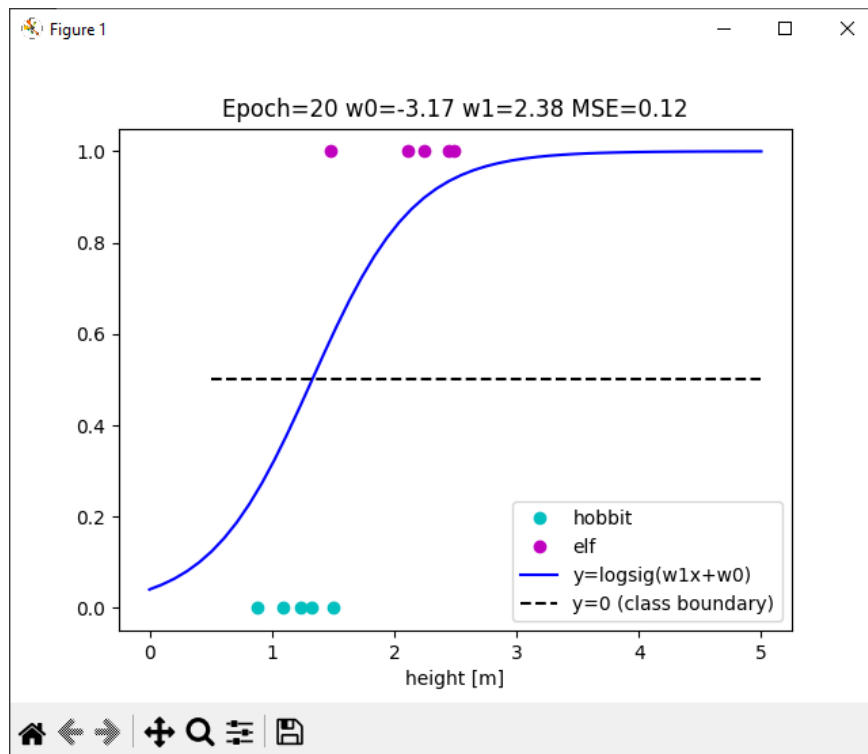Figure 1: Epoch 0 with gradient descent
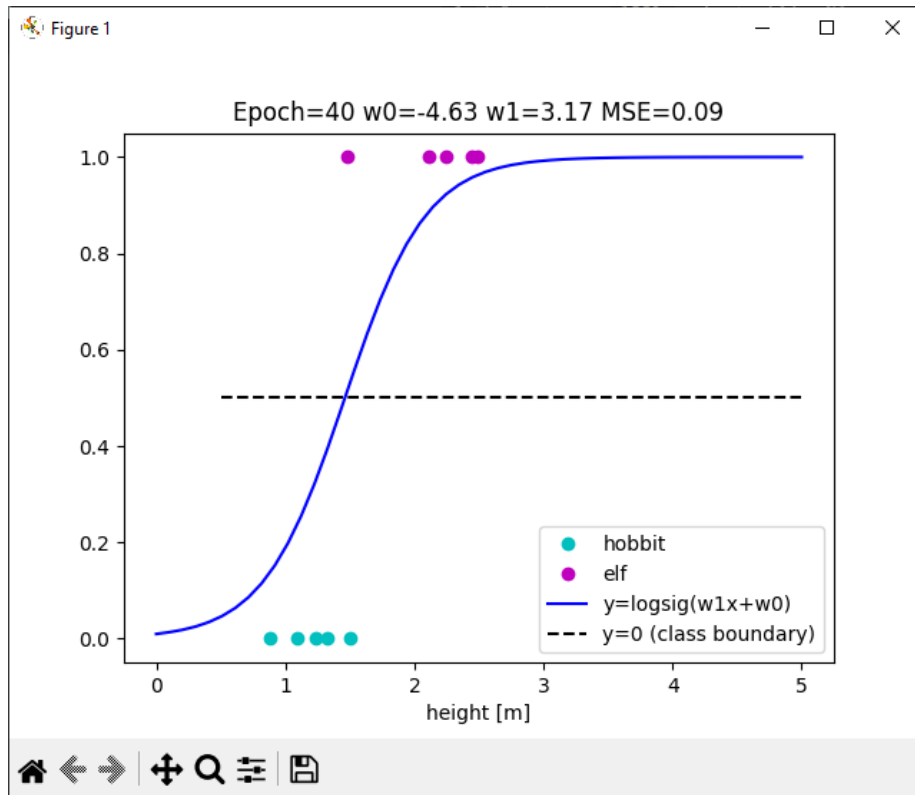

Figure 2: Epoch 20 with gradient descent

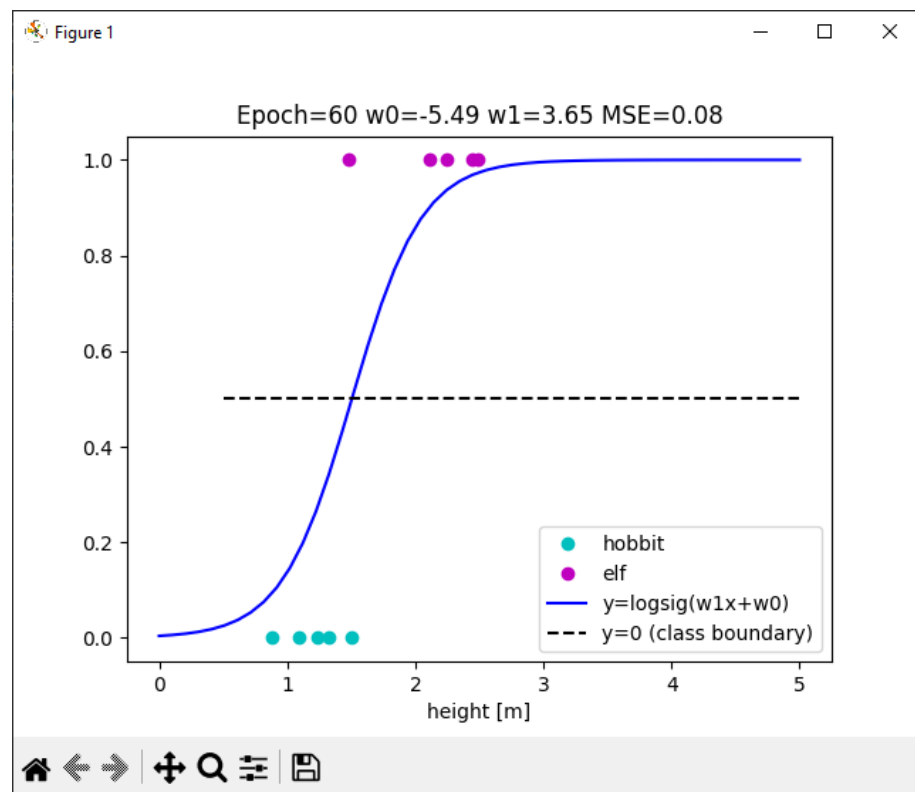Figure 3: Epoch 40 with gradient descent
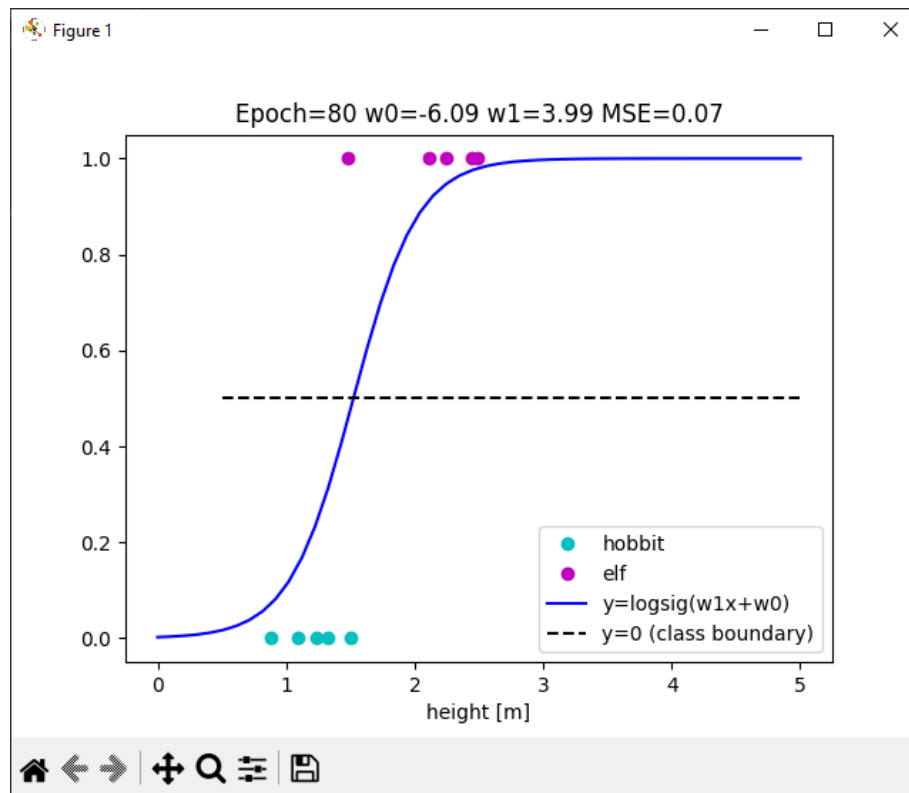

Figure 4: Epoch 60 with gradient descent

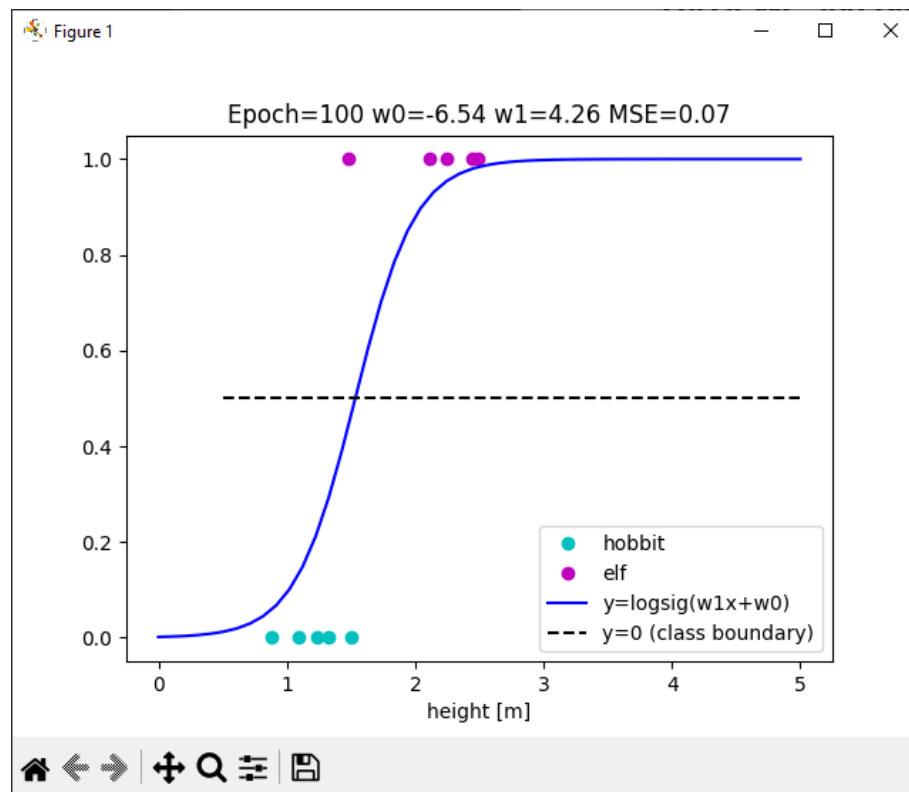Figure 5: Epoch 80 with gradient descent

Figure 6: Epoch 100 with gradient descent

The values we got seem to be fairly accurate with only one, the last sample, being wrongly classified.

```
True values y=[0. 0. 0. 0. 0. 1. 1. 1. 1. 1.] and predicted values y_pred=[0.06 0.29 0.13 0.22 0.47 0.92 0.98 0.95 0.98 0.45]
```

Learning rate of 0.5 was used for all the figures. Small adjustments to the learning rate didn't improve the results but slightly changed how fast the curve changed its shape.