

## One Fourth Labs

### Perceptron Evaluation

How do you check the performance of the perceptron model

#### 1. Training data

	phone 1	phone 2	phone 3	phone 4	phone 5	phone 6	phone 7	phone 8	phone 9
Launch (within 6 months) $x_1$	0	1	1	0	0	1	0	1	1
Weight (g) $x_2$	0.19	0.63	0.33	1.00	0.36	0.66	0.00	0.70	0.48
Screen Size (< 5.9in) $x_3$	0.64	0.87	0.67	0.88	0.70	0.91	0.00	1.00	0.47
Dual sim $x_4$	1	1	0	0	0	1	0	1	0
Internal mem(>= 64gb, 4gb ram) $x_5$	1	1	1	1	1	1	1	1	1
NFC $x_6$	0	1	1	0	1	0	1	1	1
Radio $x_7$	1	0	0	1	1	1	0	0	0
Battery (mAh) $x_8$	0.36	0.51	0.36	1.00	0.34	0.67	0.00	0.57	0.43
Price? (k) $x_9$	0.09	0.63	0.41	0.19	0.06	0.00	0.72	0.94	1.00
Liked (y)	1	0	1	0	1	1	0	1	0

#### 2. Test data

	phone 10	phone 11	phone 12	phone 13
Launch (within 6 months) $x_1$	1	0	0	1
Weight (g) $x_2$	0.23	0.34	0.44	0.54
Screen Size (< 5.9in) $x_3$	0.74	0.93	0.34	0.42
Dual sim $x_4$	0	1	0	0
Internal mem(>= 64gb, 4gb ram) $x_5$	1	0	0	0
NFC $x_6$	0	0	1	0
Radio $x_7$	1	1	1	0
Battery (mAh) $x_8$	1	1	1	0
Price? (k) $x_9$	0	0	1	0
Liked (y)	0	1	0	0
Prediction ( $\hat{y}$ )	0	1	1	0

#### 3. Accuracy = $\frac{3}{4}$ = 75%