HW: Food Detector

①

99% accuracy dog detection of food

$\frac{1}{10,000}$ w/ food

what is P of dog barks - person is w/ food

	Food	No food
bark	TP 99% $\frac{1}{10,000}$	FP 1%
no bark	FN 1%	TN 99%

$$\text{Accuracy} = \frac{TP + TN}{TP + TN + FP + FN}$$

$$= \frac{99 + 99}{99 + 99 + 1 + 1} = \frac{198}{200}$$

$$= \boxed{99\%}$$

$$\text{Precision} = \frac{TP}{TP + FN} = \frac{99}{99 + 1} = \boxed{99\%}$$

$$\text{recall} = \frac{TP}{TP + FP} = \frac{99}{99 + 1} = \boxed{99\%}$$

$$\boxed{P_{food} = 99?}$$