1 point

1. Questions 1 to 5 refer to the following scenario:

Suppose a binary classifier produced the following confusion matrix.

	Predicted Positive	Predicted Negative
Actual Positive	5600	40
Actual Negative	1900	2460

What is the **recall** of this classifier? Round your answer to 2 decimal places.

0.99

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1 point

2. Refer to the scenario presented in Question 1 to answer the following:

(True/False) This classifier is better than random guessing.

- (●) True
- ( ) False

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1 point

3. Refer to the scenario presented in Question 1 to answer the following:

(True/False) This classifier is better than the majority class classifier.

- (●) True
- ( ) False

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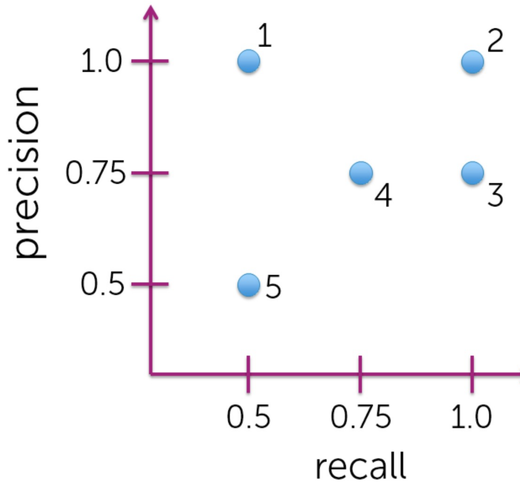
1 point

4. Refer to the scenario presented in Question 1 to answer the following:

Which of the following points in the precision-recall space corresponds to this classifier?



- ( ) (1)
- ( ) (2)
- (●) (3)
- ( ) (4)
- ( ) (5)

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1 point

5. Refer to the scenario presented in Question 1 to answer the following:

Which of the following best describes this classifier?

- (●) It is optimistic
- ( ) It is pessimistic
- ( ) None of the above

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1 point

6. Suppose we are fitting a logistic regression model on a dataset where the vast majority of the data points are labeled as positive. To compensate for overfitting to the dominant class, we should

- (●) Require higher confidence level for positive predictions
- ( ) Require lower confidence level for positive predictions

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1 point

7. It is often the case that false positives and false negatives incur different costs. In situations where false negatives cost much more than false positives, we should

- ( ) Require higher confidence level for positive predictions
- (●) Require lower confidence level for positive predictions

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1 point

8. We are interested in reducing the number of false negatives. Which of the following metrics should we primarily look at?

- ( ) Accuracy
- ( ) Precision
- (●) Recall

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1 point

9. Suppose we set the threshold for positive predictions at 0.9. What is the lowest score that is classified as positive? Round your answer to 2 decimal places.

2.20