# Week 3 Quiz

Passed

**9/10** points earned (90%)

Quiz passed!

Correct

1 / 1 points

1.

Suppose a query has a total of 4 relevant documents in the collection. System A and System B have each retrieved 10 documents, and the relevance status of the ranked lists is shown below:

System A: [- + - - - - - - - -]

System B: [+ + - - - - - - - -]

where the leftmost entry corresponds to the highest ranked document, and the rightmost entry corresponds to the lowest ranked document. A “+” indicates a relevant document and a “-” corresponds to a non-relevant one. For example, the top ranked document retrieved by System A is non-relevant, whereas the top ranked document retrieved by B is relevant.

What is the **precision at 10 documents** of both systems?



P(A) = 9/10  P(B)= 8/10



P(A) = 1/10  P(B)= 2/10



P(A) = 1/4  P(B)= 2/4



P(A) = 1/40  P(B)= 2/40

Correct

1 / 1 points

2.

Assume the same scenario as in Question 1. What is the **recall** of both systems?



R(A) = 1/10  R(B)= 2/10



R(A) = 9/10  R(B)= 8/10



R(A) = 1/40  R(B)= 2/40



R(A) = 1/4  R(B)= 2/4

Incorrect

0 / 1 points

3.

Assume the same scenario as in Question 1. What is the **average precision** of both systems?



AP(A) = 1/20  AP(B) = 1/5



AP(A) = 7/20  AP(B) = 7/10



AP(A) = 1/10  AP(B) = 1/5



AP(A) = 1/8  AP(B) = 1/2

Correct

1 / 1 points

4.

Assume you have two retrieval systems X and Y. For a specific query, system X has a higher precision at 10 documents compared to Y. Can system Y have a higher **average precision** on the same query?



Yes



No

Correct

1 / 1 points

5.

Can a retrieval system have an F1 score of 0.75 and a precision of 0.5?



No



Yes

Correct

1 / 1 points

6.

For any ranked list of search results, precision at 10 documents is **always** higher than precision at 20 documents.



False



True

Correct

1 / 1 points

7.

What can you say about the precision-recall (PR) curve?



It is always monotonically decreasing.



It is always monotonically increasing.



The ideal system should have the PR curve as a horizontal line.

Correct

1 / 1 points

8.

Which is correct about average precision?



It combines precision and recall.



It does not show the difference between ranks of relevant documents.

Correct

1 / 1 points

9.

Which of the following is NOT true about Cranfield evaluation methodology?



It simulates user queries.



It does not involve humans to make relevance judgments.



It simulates real document collections.

Correct

1 / 1 points

10.

Which of following is wrong about nDCG@k?



It has a range between 0 and 1.



It can be used to compare across queries.



It discounts only top ranked documents.

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