

2/5/2019

Test Review

Objectives:

- Be prepared for the test by reviewing vocabulary and big ideas
- Be prepared for the test by small group discussion and multiple choice practice.

Journal:

Name at least 3 different careers in which the data acquisition & analysis skills we learned this chapter would apply to.



Big Ideas From This Unit

Speed Dating Discussion



Big Ideas From This Unit

Speed Dating Discussion

1

Why do we do simulations?



Big Ideas From This Unit

Speed Dating Discussion

2

When creating a simulation describe each part of the process:

State the hypothesis

Decide what factors need to be included

Decide how to organize the data



Big Ideas From This Unit

Speed Dating Discussion

3

What are some things to think about when coding file access in Python?



Big Ideas From This Unit

Speed Dating Discussion

4

What kinds of data types would you use to simulate different situations?

Dice Roll

Coin Flip

Weather Conditions

Temperature



Big Ideas From This Unit

Speed Dating Discussion

5

BIG DATA

Who uses it?

What are the benefits?

What are the cautions?



A video-streaming service maintains a database of information about its customers and the videos they have watched.

The program below analyzes the data in the database and compares the number of viewers of science fiction videos to the number of viewers of videos of other genres. It uses the procedure `Analysis (category)`, which returns the number of unique users who viewed videos of a given category in the past year. The `Analysis` procedure takes approximately 1 hour to return a result, regardless of the number of videos of the given genre. All other operations happen nearly instantaneously.

```
sciFiFans ← Analysis ("science fiction")
genreList ← ["comedy", "drama", "mystery", "romance"]
FOR EACH genre IN genreList
{
  IF (Analysis (genre) > sciFiFans)
  {
    DISPLAY (genre)
  }
}
```

Which of the following best approximates the amount of time it takes the program to execute?

- (A) 1 hour
- (B) 2 hours
- (C) 4 hours
- (D) 5 hours



The teacher has data representing the scores of thousands of students. For each student, the data contain the student name, the midterm exam score, the final exam score, and the result of the total points calculation. Which of the following could be determined from the data?

- I. The average total points earned per student
- II. The average increase in total points per student as a result of the score replacement policy
- III. The proportion of students who improved their total points as a result of the score replacement policy

- (A) III only
- (B) I and II only
- (C) I and III only
- (D) I, II, and III



Questions...

