

MidTerm-Review

- Binary Unit:
 - <https://quizizz.com/admin/quiz/58fcc4833f71dd110052dca8>
- Units: 2,3,4:
 - <https://quizizz.com/admin/quiz/58597c66ae2c806d662c0aa3>
- Internet Unit:
 - <https://quizizz.com/admin/quiz/59e64177529b541100700de8>
 - <https://quizizz.com/admin/quiz/57cfe26b006e250134f6191b>

Unit-1

- 1) A user clicks on a website, and it begins to load immediately, but it takes a long time to load completely and pictures appear slowly, one by one. Which of the following is demonstrated through this situation?
 - A. High bandwidth, high latency
 - B. Low bandwidth, high latency
 - C. High bandwidth, low latency
 - D. Low bandwidth, low latency
- 2)
- 3) A middle school is expanding to open a high school next year, doubling the total number of students. The school keeps a database in which each student's unique ID number is stored as an 8 bit number called studentID. Before the arrival of the new students almost every 8 bit number has already been assigned to a student. Of the options provided below, which is the smallest change to the way studentID is represented necessary to ensure each incoming student receives a unique ID?
 - A. Add a bit to studentID to double the number of IDs that the database can represent.
 - B. Double the number of bits in studentID to double the number of IDs that the database can represent
 - C. Keep using an 8-bit number for studentID but reserve the first bit to indicate middle school or high school.
 - D. Remove a bit from studentID to make room for incoming students

Explain: Doubling the number of bits would obviously make room for more student IDs, but it's inaccurate to say that that doubles the number of possible IDs. If the number of bits went from 8 to 16, it's 256 TIMES AS MANY possible ids. 8 bits = 256 values and 16 bits = 65,536 IDs.