



Republic of the Philippines
Department of Education
National Capital Region
Schools Division Office – Muntinlupa City

SPTVE COMPUTER SYSTEMS SERVICING 7
Quarter 3/Week 2

I. Topic: Perform Mensuration and Calculation

II. Objectives:

1. identify types of components and specification.
2. determine the process of measurements.
3. value the importance of mensuration determining the memory of the computer.

III. Brief Introduction of the Lesson

This lesson deals with the types of components and correct specifications of the relevant resources in the computer.

Mensuration is all about the process of measurement. Mensuration is based on the use of algebraic equations and geometric calculations to provide measurement data regarding the width, depth, and volume of a given object or group of objects. While the measurement results obtained using mensuration are estimates rather than actual physical measurements, the calculations are usually considered very accurate.

MEMORY

Although memory is technically any form of electronic storage, it is used most often to identify fast, temporary forms of storage. If your computer's CPU had to constantly access the hard drive to retrieve every piece of data it needs, it would operate very slowly. When the information is kept in memory, the CPU can access it much more quickly. Most forms of memory are intended to store data temporarily.

Types of Drive Interfaces

Hard drives and optical drives are manufactured with different interfaces that are used to connect the drive to the computer. To install a storage drive in a computer, the connection interface on the drive must be the same as the controller on the motherboard. Here are some common drive interfaces:

- IDE – Integrated Drive Electronics, also called Advanced Technology Attachment (ATA) is an early drive controller interface that connects computers and hard disk drives. An IDE interface uses a 40-pin connector.
- SATA – Serial ATA refers to the serial version of the ATA drive controller interface. A SATA interface uses a 7-pin data connector.
- SCSI – Small Computer System Interface is a drive controller interface that can connect to 15 drives. SCSI can connect both internal and external drives. An SCSI interface uses a 50-pin, 68-pin, or 80-pin connector.





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IV. Activities:

Activity 1 - "SOLVE ME"

A. Directions: Convert the decimal numbers shown below to binary. Perform checking to verify your answers.

1. 19
2. 28
3. 37

B. Directions: Solve the problems indicated below. Show your solution.

1. How many 60 KB jpg files can be stored on a 2 MB folder in your hard drive?
2. How many 5 MB mp3 files can be stored on a 1 GB flash drive?
3. How many 750 MB Avi files can be stored on a 4.3 GB DVD-R?

Activity 2 "SELECT ME"

Directions: Write the letter of the correct answer on a separate sheet of paper.

1. How many bytes are there in 5 kilobytes?
A. 5210 B.5120 C. 5024 D.5124
2. How many bits are there in 10 bytes?
A.60 B.50 C.80 D.70
3. How do we represent 9 in binary form?
A.00001001 B.00001101 C.00010100 D.00010111
4. If the size of a file is 20 KB, then how many Bytes will it occupy in the storage device?
A.24080 B.24008 C.20408 D.20480
5. How many megabytes are there in 15 gigabytes?
A.15260 B.15620 C.15360 D.153806.
6. How many 10-mB files can be stored on a 1 gigabyte USB flash drive?
A.120 B.104 C.102 D.130
7. How many megabytes are there in 4 gigabytes?
A.4096 B.5096 C.4098 D.4906
8. What decimal number is represented by the binary number 00011001?
A.25 B.35 C.26 D.15
9. What decimal number is represented by the binary number 00010001?
A.18 B.16 C.15 D.17
10. What decimal number is represented by the binary number 00000101?
A.4 B.5 C.6 D.3





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Activity 3 “MATCH ME”

Directions: Match items on Column A with Column B. Write your answers on a separate sheet of paper.

A	B
___ 1. Chips that are located on the motherboard. A. Registers	A. Registers
___ 2. A magnetic storage device is installed inside the computer.	B. Flash drive or Thumb drive
___ 3. Early drive controller interface that connects computers and hard disk drives which an interface that uses a 40-pin connector.	C. Read-only memory
___ 4. Temporary storage for data and programs that are being accessed by the CPU.	D. IDE
___ 5. A storage device that uses lasers to read data on the optical media.	E. Floppy drive
___ 6. A storage device that uses removable 3.5- inch disks.	F. Random access memory
___ 7. Soldered the memory chips on a special circuit board.	G. Optical drive
___ 8. A removable storage device that connects to a USB port.	H. DDR
___ 9. Memory cells are built right into the CPU that contains specific data needed particularly the Arithmetic and Logic Unit.	I. Hard drive
___ 10. Technology that doubles the maximum bandwidth of SDRAM.	J. Memory module

V. Assessment:

Directions: Write the letter of the correct answer on a separate sheet of paper.

- What do you call the chips that are in the motherboard?
 - hard drive
 - floppy drive
 - read-only memory
 - optical drive
- It is a magnetic storage device that is installed inside the computer.
 - hard drive
 - optical drive
 - floppy drive
 - flash drive
- It is an early drive controller interface that connects computers and hard disk drives which an interface that uses a 40-pin connector?
 - DDR
 - IDE
 - RAM
 - ROM





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4. Is its temporary storage for data and programs that are being accessed by the CPU?
A. optical Drive C. memory stick
B. Read-only Memory D. Random Access Memory

5. It is a narrow-printed circuit board that holds memory chips answer choices
A. memory module C. motherboard
B. registers D. CPU

VI. Reflection

Directions: Answer the following questions. Write your answer on a separate sheet of paper.

1. What is Mensuration?

2. What is the importance of mensuration?

3. Why do we need to perform mensuration and calculation?

References:

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Rmiaz

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