

Computer Merit Badge Worksheet

SPECIAL NOTE FROM THE MERIT BADGE CENTER. Several requirements for the Computers Merit Badge are obsolete technology and no longer in use. You may need to consult your counselor, and with the approval of your District Advancement Committee, make adjustments to requirements to fit the current practice in the field of computing.



Requirement 1

Tell what computers are.

Briefly describe the history of computers.

What is data processing?

How is data processing used?

Requirement 2

Name the four major components of a computer system.

1. _____
2. _____
3. _____
4. _____

Describe the function of one component in detail.

Which component are you describing? _____

Describe the function

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Requirement 3

Build a simple model of one of the following to illustrate its function in detail: Core Storage, Drum Storage, or Disk Storage.

Which type of storage are you creating a simple model for? _____

Requirement 4

Describe the differences and uses of analog and digital computers

DIFFERENCES		USES	
ANALOG COMPUTER	DIGITAL COMPUTER	ANALOG COMPUTER	DIGITAL COMPUTER

Explain the Hollerith and Powers Codes

Explain the roles of Hollerith and Powers Codes in Computers

Requirement 5

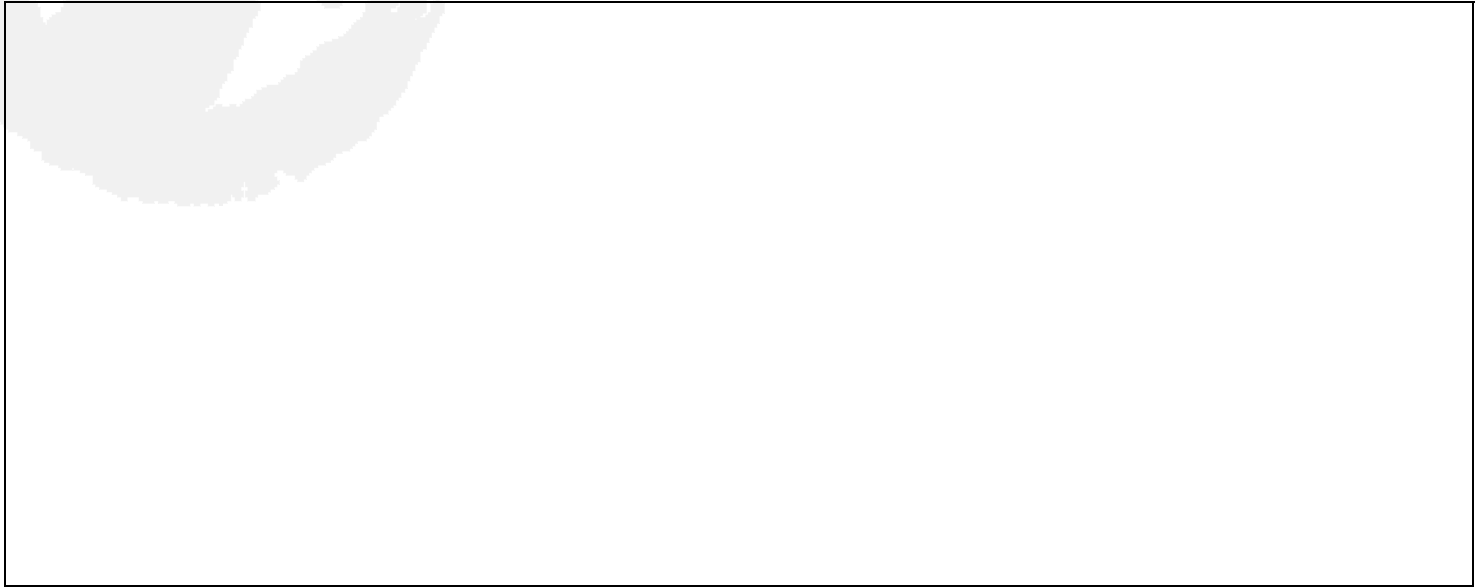
Obtain your local post office Zip code and convert it to binary.

What is your local post office Zip code? _____

What is its binary equivalent? _____

Requirement 6

Using the flow-chart diagram method, show the steps necessary in setting up a campsite



Requirement 7


Name four different uses of computers in business.

1. _____
2. _____
3. _____
4. _____

Requirement 8

Convert your full name to the following codes:

Hollerith Code



Binary Coded Decimal

Eight-Channel Standard Code

Requirement 9

Meaning of the following in your own words.

Functional Units _____

Storage _____

Input and Output Devices _____

Random Access _____

Online System _____

Central Processing Unit _____

Magnetic Ink Character _____

Information Retrieval _____

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Solid-State Components _____

Nanosecond _____

Stored Program _____

Console _____

Optical Reader _____

Register _____

Requirement 10

Do any two of the following.

- Visit a local data-processing installation.

Name the data-processing installation visited: _____

- Obtain and read two pieces of information about data processing other than the manufacture's literature.

Name the two pieces of information you read:

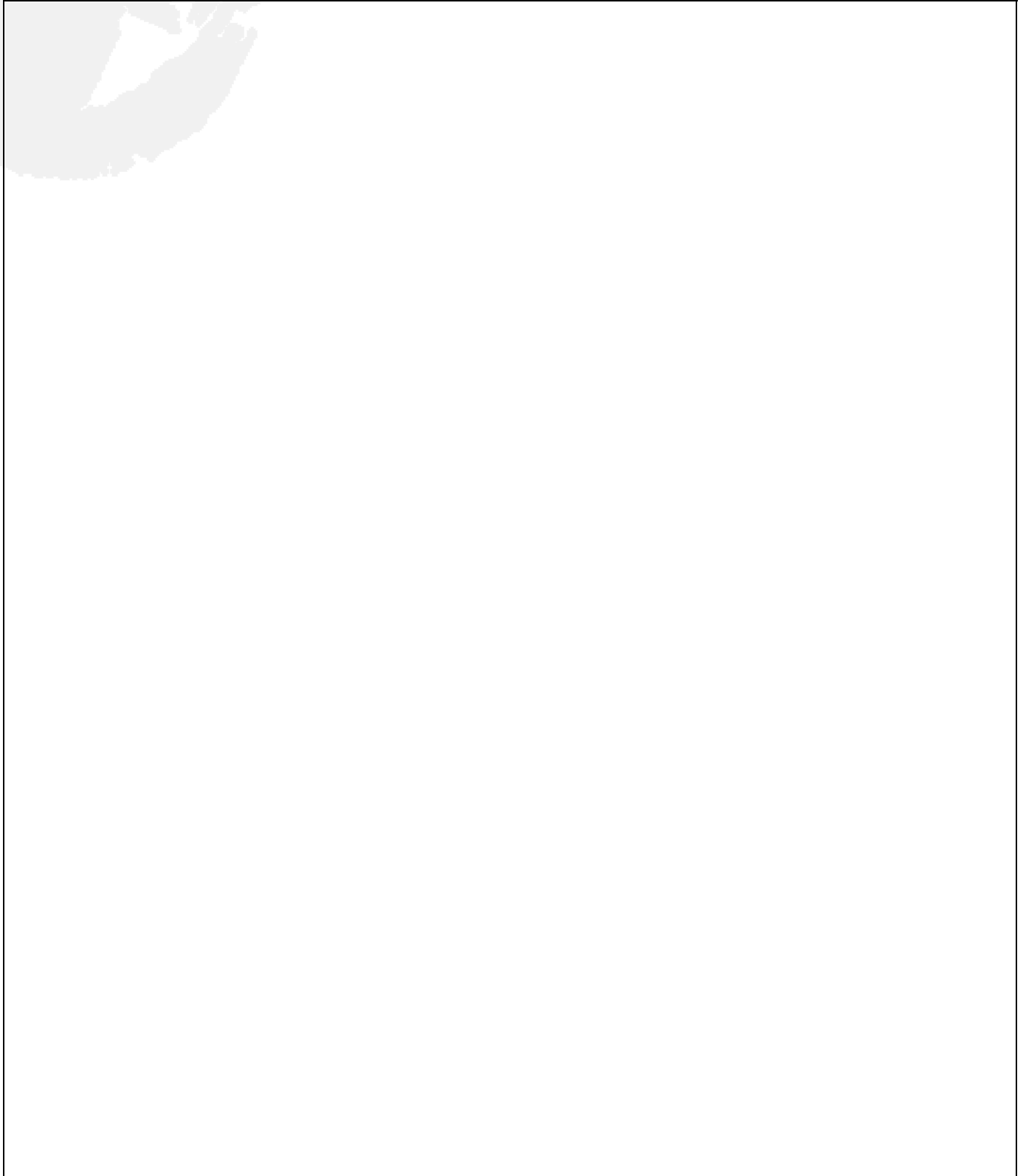
1. _____

2. _____

Summarize what you read.

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Write a 500-word report on the various types of specialist occupations available in the data-processing field. Include educational requirements and average wage brackets when possible.



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- Five examples of data-processing output or type, cards, or report form used.

List the five examples shown to your counselor:

1. _____
2. _____
3. _____
4. _____
5. _____

Requirement 11

Do the following.

- Construct an analog adder and explain its operation

Draw the analog adder you constructed

Explain the analog adders operation

- Construct a card reader and demonstrate to your counselor.

Draw the analog adder you constructed

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Explain the difference between Hollerith code and internal machine code.

HOLLERITH CODE	INTERNAL MACHINE CODE