

The Problem-Solving and Design Process

Name _____ Period _____
Date _____ Score _____

Chapter 9 Quiz

True/False: If a statement is true, write *True* in the blank. If a statement is false, write *False* in the blank.

- _____ 1. All technology is designed to solve a problem.
- _____ 2. Operational and safety characteristics of a product are based on how, where, and by whom the product will be used.
- _____ 3. Technological problem solving replaces a labor-intensive process with an equipment-intensive process.
- _____ 4. Technological information includes natural laws and principles that must be considered in developing the solution.
- _____ 5. Communicating a technological solution to a problem includes obtaining proper approval.

Multiple Choice: Choose the best answer and write the corresponding letter in the blank.

- _____ 6. The first step in solving technological problems involves:
- defining the problem.
 - developing possible solutions.
 - modeling the best solution.
 - interpreting the solution.
- _____ 7. Which of the following describes the functional characteristics a customer wants in a device?
- Technical criteria
 - Financial criteria
 - Marketing criteria
 - Production criteria
- _____ 8. Which of the following types of information describes the values people have toward similar devices and systems?
- Human information
 - Legal information
 - Technological information
 - Ethical information
- _____ 9. What type of information-gathering process records observations of present conditions?
- Historical methods
 - Descriptive methods
 - Experimental methods
 - Both b. and c.

(Continued)

Name _____

Short Answer: In the space provided, write a brief answer to the following question.

10. List the four major steps in the problem-solving method used to develop new technology.
