

Name _____

Date _____

What Is Engineering?

Read each question and circle the correct answer.

1. All engineers

A. solve problems.

B. work with bridges.

C. work with computers.

D. invent new technology.

2. Which of the following is an engineer?

A. someone who designs books for publication

B. someone who designs apps for smartphones

C. someone who takes care of plants in a city park

D. someone who designs clothing for a fashion label

3. Which type of engineer would design a new water system for a city?

A. civil engineer

B. software engineer

C. electrical engineer

D. mechanical engineer

4. Which type of engineer develops computer programs?

A. civil engineer

B. software engineer

C. electrical engineer

D. mechanical engineer

5. Which of these would a mechanical engineer do?

A. design a train station for a city

B. help clean up an oil spill in the ocean

C. build an escalator for a department store

D. troubleshoot problems with a new computer model

6. The process engineers use is called the

- A. engineering steps.
- B. mathematical method.
- C. engineering criteria project.
- D. engineering design process.

7. NASA engineers are designing a robot to test the soil on Mars. Which of these describes a constraint?

- A. The engineers test many prototypes.
- B. Mars is closer to the Sun than Earth.
- C. The robot takes rock samples from Mars.
- D. The spacecraft can only carry 100 pounds of extra weight.

8. Which of these describes a fair test?

- A. doing a lot of research to help solve a problem
- B. changing one thing about a prototype after doing a test
- C. designing an entirely different prototype after doing a test
- D. designing two prototypes and testing them at the same time

9. Which of these describes an iteration?

- A. knowing the constraints before starting to design a solution
- B. identifying all aspects of a problem before starting to find solutions
- C. coming up with several possible solutions before making a prototype
- D. testing a prototype, making one change, then making a new prototype that reflects the change

10. Once engineers design a working solution, iterate and improve, they

- A. communicate and share it.
- B. forget it and start over.
- C. keep it secret.
- D. destroy it.