

**Definitions: Topic 1: The Scientific Method**  
**Unit 2: Research Methods**

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**MULTIPLE CHOICE**

1. What approach attempts to gather information and to answer questions in such a way that errors and bias are minimized?
- |                     |                          |
|---------------------|--------------------------|
| a. debriefing       | c. scientific method     |
| b. random selection | d. variable manipulation |

ANS: C                      PTS: 1                      DIF: Remember  
 OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research.                      TOP: Methods for All Sciences

2. The “scientific” part of psychology refers to its use of \_\_\_\_.
- |                          |               |
|--------------------------|---------------|
| a. the scientific method | c. theories   |
| b. introspection         | d. statistics |

ANS: A                      PTS: 1                      DIF: Understand  
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3. The scientific method attempts to \_\_\_\_.
- propose theoretical ideas to answer questions
  - minimize errors and bias in gathering information and answering questions
  - promote common sense understanding
  - dispute common sense by forcing scientists to do experiments

ANS: B                      PTS: 1                      DIF: Understand  
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4. The scientific method is defined as \_\_\_\_.
- an approach to answering questions that minimizes errors and bias
  - a faith that precise equipment will produce accurate information
  - all of the findings of science in the modern era
  - a set of guidelines published by the American Academy of Science

ANS: A                      PTS: 1                      DIF: Remember  
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5. In conducting an experiment, a precisely worded, educated guess is called a \_\_\_\_.
- |               |                  |
|---------------|------------------|
| a. hypothesis | c. variable      |
| b. proposal   | d. randomization |

ANS: A                      PTS: 1                      DIF: Remember  
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6. What is the method of developing knowledge based on the evaluation of evidence from experiments and careful observation?
- |                           |                         |
|---------------------------|-------------------------|
| a. introspective approach | c. empirical approach   |
| b. statistical approach   | d. theoretical approach |

ANS: C                    PTS: 1                    DIF: Remember  
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7. The goals of psychology are to describe, predict, explain, and \_\_\_\_.
- a. replicate studies
  - b. control events
  - c. manipulate behavior
  - d. publish results

ANS: B                    PTS: 1                    DIF: Understand  
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8. Hypotheses are \_\_\_\_.
- a. conclusions drawn from observations
  - b. precise predictions that can be tested through research
  - c. useful only if they prove to be correct
  - d. explanations that organize observations and account for the relationships among them

ANS: B                    PTS: 1                    DIF: Remember  
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9. Which of the following is a step in the scientific method?
- a. Developing a theory
  - b. Selecting a research method
  - c. Consulting the literature
  - d. Forming a hypothesis

ANS: D                    PTS: 1                    DIF: Remember  
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10. Which of the following is the correct order of steps in the scientific method?
- a. Forming a hypothesis, developing a research question, gathering evidence, drawing conclusions
  - b. Gathering evidence, developing a research question, forming a hypothesis, drawing conclusions
  - c. Developing a research question, forming a hypothesis, gathering evidence, drawing conclusions
  - d. Formulating a theory, developing a research question, gathering evidence, drawing conclusions

ANS: C                    PTS: 1                    DIF: Understand  
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11. One important difference between science and everyday observations is that science relies on \_\_\_\_.
- a. objectivity
  - b. introspection
  - c. perspective
  - d. subjectivity

ANS: A                    PTS: 1                    DIF: Remember  
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12. Any observation by a human being is, by definition, \_\_\_\_.
- a. objective
  - b. falsifiable
  - c. inferential
  - d. subjective

ANS: D                    PTS: 1                    DIF: Remember  
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13. Which of the following best describes scientific knowledge?
- a. historical and progressive
  - b. stable and changing
  - c. qualitative and definitive
  - d. quantitative and procedural

ANS: B                    PTS: 1                    DIF: Understand  
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14. The ability to think clearly, rationally, and independently is called \_\_\_\_.
- a. moral reasoning
  - b. authoritative reasoning
  - c. free thinking
  - d. critical thinking

ANS: D                    PTS: 1                    DIF: Remember  
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15. The ability to think critically is \_\_\_\_.
- a. a skill that people need to learn
  - b. set by the teenage years
  - c. genetically determined
  - d. based on cultural norms

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16. A set of facts and relationships between facts that can explain and predict related phenomena is called a(n) \_\_\_\_.
- a. theory
  - b. hypothesis
  - c. descriptive method
  - d. experiment

ANS: A                    PTS: 1                    DIF: Remember  
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17. The best scientific theories not only explain and organize known facts, but they also generate new \_\_\_\_.
- a. facts
  - b. predictions
  - c. conclusions
  - d. behaviors

ANS: B                    PTS: 1                    DIF: Remember  
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18. As Sir Isaac Newton noted, scholars stand \_\_\_\_.
- a. on shifting sands
  - b. beneath the tree of knowledge
  - c. on the shoulders of giants
  - d. at the intersection of history and knowledge

ANS: C                    PTS: 1                    DIF: Remember  
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19. What is a proposed explanation for a situation, usually taking the form “if A happens, then B will be the result”?
- a. theory
  - b. research proposal
  - c. experiment
  - d. hypothesis

ANS: D                      PTS: 1                      DIF: Understand  
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20. Scientific hypotheses must be both \_\_\_\_.
- a. falsifiable and testable
  - b. valid and replicable
  - c. falsifiable and reliable
  - d. valid and testable

ANS: A                      PTS: 1                      DIF: Understand  
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21. What feature of a hypothesis means that it can be evaluated using known scientific methods?
- a. replicable
  - b. testable
  - c. reliable
  - d. valid

ANS: B                      PTS: 1                      DIF: Understand  
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