Chapter 7: Cognitive Abilities and Aptitudes

Test Bank

# Multiple Choice

1. What comments regarding the underrepresentation of women in science--made by former Harvard president, Lawrence Summers--sparked controversy at a 2005 conference, ultimately leading to his resignation?

A. that sexism is virtually nonexistent in modern society

B. that men have greater natural aptitudes at the highest levels of math and science

C. that women are socialized to pursue more communal occupations

D. that women are less competitive and thus less likely to excel at the highest levels of science

Ans: B

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Knowledge

Answer Location: Cognitive Abilities and Aptitudes

Difficulty Level: Easy

2. Examples of cognitive abilities include all of the following EXCEPT \_\_\_\_\_\_.

A. attention

B. speaking

C. openness to new experience

D. problem solving

Ans: C

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Knowledge

Answer Location: Cognitive Abilities and Aptitudes

Difficulty Level: Easy

3. While the average performance of adolescent boys on \_\_\_\_\_\_ in the United States exceeds the girls, girls consistently outperform boys when it comes to \_\_\_\_\_\_.

A. problem solving; spatial reasoning

B. verbal tests, math tests

C. standardized verbal tests, school English grades

D. standardized math tests; school math grades

Ans: D

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Application

Answer Location: Cognitive Abilities and Aptitudes

Difficulty Level: Hard

4. Explaining the underrepresentation of women in STEM with sex differences in preferences, expectations, and competitiveness represents an appeal to \_\_\_\_\_\_.

A. nature

B. nurture

C. legitimizing ideologies

D. a mix of nature and nurture

Ans: D

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Comprehension

Answer location: What Is the Meaning of Difference?

Difficulty Level: Medium

5. \_\_\_\_\_\_ is the general capacity to understand ideas, think abstractly, reason, solve problems, and learn.

A. Cognitive aptitude

B. Intelligence

C. Abstract reasoning

D. Agency

Ans: B

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Comprehension

Answer Location: What Is the Meaning of Difference?

Difficulty Level: Medium

6. Psychologists at the end of the 19th century attempted to make a scientific case for women’s intellectual inferiority based upon what questionable assumption?

A. The mass and volume of the brain reflects differences in intelligence.

B. Testosterone is linked to neural development.

C. Emotions interfere with abstract reasoning and logical deduction.

D. That there is more variance in men’s intelligence, leading to higher proportions of men in the tale ends of the distribution.

Ans: A

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: What Is Science?

Difficulty Level: Medium

7. Each of the following are TRUE of the intelligence quotient EXCEPT \_\_\_\_\_\_.

A. IQ scores have been increasing each decade.

B. It is a standardized score, calculated relative to one’s peers.

C. It fluctuates vastly throughout adulthood.

D. Items in IQ tests that produce sex differences are typically replaced.

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: The Scientific Method

Difficulty Level: Easy

8. Which of the following best describes Charles Spearman’s view of intelligence?

A. Intelligence scores are indicative of educational success but lack predictive validity in the real world.

B. Mental ability fluctuates throughout adulthood and is difficult to measure reliably.

C. Intelligence is domain specific and is dependent on the subject matter.

D. Individuals possess a general mental ability related to their performance on all cognitive tasks.

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: The Scientific Method

Difficulty Level: Hard

9. What best describes what the bulk of research shows regarding sex differences in general mental ability?

A. consistent, but small differences favoring males

B. small differences that do not consistently favor particular sex

C. differences favoring females prior to puberty and small differences favoring males thereafter

D. consistent, but small differences favoring females

Ans: B

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: The Scientific Method

Difficulty Level: Easy

10. Anthony Jorm and colleagues (2004) discovered what variables help explain sex differences in cognitive tests?

A. men’s better health on dimensions such as pulmonary functioning and exercise frequency

B. men’s better access to higher education

C. lower levels of self-esteem in women during adulthood

D. the anxiety inducing effects of stereotype threat during test taking

Ans: A

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: The Scientific Method

Difficulty Level: Medium

11. Following Thurston and Thurston’s (1941) factor analysis of intelligence tests, what three dimensions of cognitive abilities have dominated explorations of sex differences?

A. social, introspective, and integrative

B. inductive, deductive, and probabilistic

C. abstract, concrete, and communicative

D. verbal, quantitative, and spatial

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Quantitative Research Methods

Difficulty Level: Easy

12. What best summarizes the evidence on sex differences in verbal ability?

A. Verbal skills consistently favor females across all meta-analyses.

B. Sex differences are small, tend to favor girls, and depend upon type of verbal ability.

C. Sex differences vary greatly, with some areas favoring males and others favoring females by large margins.

D. More recent meta-analyses have found close-to-zero effect sizes across all types of verbal abilities.

Ans: B

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Experimental Designs

Difficulty Level: Easy

13. Which area of verbal ability is an exception to the typical female advantage?

A. vocabulary

B. reading

C. verbal reasoning

D. writing

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Experimental Designs

Difficulty Level: Easy

14. Reilly (2012) found the size of sex difference in reading ability correlates with \_\_\_\_\_\_.

A. age

B. national indices of gender equality

C. indicators of women’s health

D. the size of sex differences in math abilities

Ans: B

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: Experimental Designs

Difficulty Level: Medium

15. What best summarizes the evidence on sex differences in math ability?

A. Across different types of math ability, the effect size of sex differences is consistently zero.

B. Moderate sex differences favoring males emerge in both older and more recent meta-analyses.

C. When meta-analyses control for gender equality, consistent sex differences favoring women emerge.

D. Small differences favoring boys sometimes emerge in complex math problems, but these gaps virtually disappear with greater gender equality.

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: Experimental Designs

Difficulty Level: Hard

16. Which of the following shows moderate to large sex differences favoring males?

A. verbal reasoning

B. math ability

C. spatial ability

D. memory

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: Experimental Designs

Difficulty Level: Hard

17. Which of the following is evidence for a nurture explanation of sex differences in spatial ability?

A. Reading and writing are more highly emphasized in girls’ early education.

B. Boys tend to play more games that involve hand eye coordination.

C. Differences in prenatal hormones influence the formation of brain structures related to spatial ability.

D. Twin studies indicate that spatial skills, such as mental rotation, are highly heritable.

Ans: B

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Ex Post Facto Designs

Difficulty Level: Easy

18. Which of the following spatial abilities does not show the typical male advantage?

A. mental rotation

B. spatial perception

C. spatial memory

D. visualization

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Quasi-Experimental

Difficulty Level: Easy

19. Which of the following is NOT true of sex differences in mental rotation?

A. They appear in infancy.

B. They are consistent across culture.

C. They are sensitive to experimental manipulations such as activating feelings of power in women.

D. Effect sizes are smaller in countries with greater gender equality.

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Correlational Designs

Difficulty Level: Easy

20. Being able to identify whether or not a surface is truly level is an example of \_\_\_\_\_\_.

A. mental rotation

B. spatial perception

C. spatial visualization

D. spatial location memory

Ans: B

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Correlational Designs

Difficulty Level: Easy

21. Overall, meta-analyses suggest sex differences favoring females on test of most \_\_\_\_\_\_ abilities and sex differences favoring males on tests of most \_\_\_\_\_\_ abilities.

A. math; verbal

B. verbal; math

C. verbal; spatial

D. math; spatial

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: Correlational Designs

Difficulty Level: Medium

22. A test asking participants to generate as many words that fit in a given category (e.g., birds) would be an example of a measure of \_\_\_\_\_\_.

A. writing

B. verbal reasoning

C. verbal fluency

D. verbal memory

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: Correlational Designs

Difficulty Level: Hard

23. Beyond looking at differences in mean scores, researchers also compare the \_\_\_\_\_\_ for each sex to examine sex differences in cognitive abilities.

A. intragroup reliabilities

B. covariances

C. Between group variance

D. Within group variance

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: Qualitative Research Methods

Difficulty Level:Medium

24. Greater variability among males in math ability would suggest what regarding sex differences?

A. The distribution of math ability for women will be flatter, with a less pronounced “Bell” shape.

B. Sex differences favoring females will be more likely to emerge on complex math tests.

C. There will be higher proportions of men at both tail ends of the distribution for math ability.

D. Men will tend to cluster more towards the center of the bell curve for math ability.

Ans: C

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: Qualitative Research Methods

Difficulty Level: Hard

25. Which of the following is NOT true of evidence related to the greater male variability hypothesis?

A. Boys are more likely than girls to be diagnosed with learning disabilities.

B. The male to female ratio of top scoring test-takers in the United States has declined over time.

C. It does not emerge in some countries.

D. It holds consistently for people of every ethic group.

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Qualitative Research Methods

Difficulty Level: Easy

26. Consider Larry Summers’ assertion that the underrepresentation of women in science is partly due to sex differences in the natural variability of cognitive abilities. What does the research on sex differences in cognitive abilities say about the truth of Summers’ statement?

A. Some evidence does suggest greater male variability, but we lack evidence that such variability is explained by nature alone.

B. Meta-analyses indicate that differences in variability are either near zero or entirely dependent upon country and ethnicity.

C. Contrary to the controversy, research actually supports Summers’ comments. Research does point to greater male variability that is unexplained by culture.

D. The existing evidence is too inconsistent and variable to definitively reject or support Summers’ statements.

Ans: A

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Application

Answer Location: Mixed Methods

Difficulty Level: Hard

27. What best describes the relative contributions of biology and environment to cognitive ability according to Diane Halpern’s biopsychosocial model?

A. Biological factors cause people select certain experiences and environments that affect cognitive ability.

B. Differences in biological structures related to cognitive abilities are caused one’s learning experiences.

C. Biological and environmental factors both affect cognitive abilities separately and independent of one another.

D. Biology and environment both cause changes in one another, mutually shaping each other to produce changes in cognitive abilities.

Ans: D

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Mixed Methods

Difficulty Level: Easy

28. Which of the following is an example of environment shaping biology to affect cognitive ability?

A. effect size

B. group average

C. *p*-value

D. confidence interval

Ans: A

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: What Do Meta-Analyses and Effect Sizes Tell Us about Sex Differences?

Difficulty Level: Easy

29. Of all cognitive domains, \_\_\_\_\_\_ performance shows the greatest variability in sex differences from culture to culture.

A. verbal

B. math

C. spatial

D. memory

Ans: B

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: What Do Meta-Analyses and Effect Sizes Tell Us about Sex Differences?

Difficulty Level: Easy

30. \_\_\_\_\_\_\_ is one proposed environmental factor that may partly explain women’s higher math anxiety relative to men.

A. Gender identity threats

B. Androgen exposure

C. Gender harassment

D. Stereotype threat

Ans: D

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: Effect Sizes

Difficulty Level: Easy

31. Based on the proposed mechanisms of stereotype threat, which of the following women is less likely to experience effects of stereotype threat upon math performance?

A. women in countries with relatively less gender equality

B. women who have a high working memory capacity

C. women who also have high spatial abilities

D. women with larger temporal parietal lobes

Ans: B

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Effect Sizes

Difficulty Level: Medium

32. Which type of cues tend elicit larger stereotype threat effects?

A. subtle

B. blatant

C. nonconscious

D. explicit

Ans: A

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: Effect Sizes

Difficulty Level: Easy

33. Which of the following would be the best strategy for buffering against the effects of stereotype threats?

A. ensuring the source of the threat is subtle rather than blatant

B. telling women that sex differences result from biology rather than environment

C. increasing the salience of social identity rather than individual identity

D. writing about personal values or activities you excel at prior to taking a test

Ans: D

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Effect Sizes

Difficulty Level: Medium

34. One study by Baldiga (2013) found that women’s lower performance on the SAT may be partly due to less willingness to \_\_\_\_\_\_.

A. double-check their responses

B. skip questions that they don’t know the answers too

C. provide the same response repeatedly if it makes the answer choices appear nonrandom

D. guess on questions

Ans: D

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Effect Sizes

Difficulty Level: Medium

35. What evidence has Jacquelynne Eccles found over here career for differences in achievement motivation producing differences in math performance?

A. Boys are generally more motivated to have greater academic achievements.

B. Girls are more likely to increase effort in response to academic failures.

C. Boys are more likely to increase effort in response to academic failures.

D. She finds no evidence that girls or boys are more likely to give up following academic failures.

Ans: D

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: Effect Sizes

Difficulty Level: Easy

36. Roberts (1991) presents evidence that men are more likely than women to respond to feedback by \_\_\_\_\_\_.

A. ignoring negative comments and focusing on the positive ones

B. being responsive and changing behavior accordingly

C. internalizing failures and externalizing successes

D. increasing effort

Ans: A

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: Effect Sizes

Difficulty Level: Easy

37. East Asian cultures tend to emphasize \_\_\_\_\_\_ learning; whereas Western cultural typically stress \_\_\_\_\_\_ learning.

A. intrinsically motivated; achievement based

B. achievement based; intrinsically motivated

C. interest-based; effort-based

D. effort-based; interest-based

Ans: D

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Beyond Overall Effect Sizes

Difficulty Level: Medium

38. Evans and colleagues (2002) examination of academic interest and knowledge across 11th graders in Taiwan, Japan, and the United States found which of the following?

A. smaller sex differences in math favoring boys in Taiwan and Japan

B. East Asian girls outperformance girls in the United States on math

C. decreased math performance for boys in Taiwan and Japan

D. overall higher academic performance in the United States

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: What Are Some Biases Common in Sex and Gender Research?

Difficulty Level: Medium

39. Meluish and colleagues (2008) found that all of the following at ages 3-4 predicted math achievement at age 10 better than child’s sex EXCEPT \_\_\_\_\_\_.

A. home learning environment

B. number of friends

C. mother’s education

D. primary school effectiveness

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: What Are Some Biases Common in Sex and Gender Research?

Difficulty Level: Medium

40. Which of the following is TRUE of the relationship between parents’ and children’s math anxiety?

A. interventions to prevent parents’ anxiety from affecting children’s anxiety work better for boys than girls

B. children with parents high in math anxiety show lower math anxiety if their parents help them with homework

C. completing structured math activities with their children can prevent parents’ math anxiety from increasing their children’s math anxiety

D. children are more likely to increase effort in math when parents have high math anxiety

Ans: C

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Application

Answer Location: Identifying the Research Question

Difficulty Level: Hard

41. Researchers examining the extent that teachers’ attitudes influence children’s math attitudes has found all of the following EXCEPT \_\_\_\_\_\_.

A. Teachers’ expectations of their students’ math abilities are primarily driven by stereotypes.

B. Teachers’ gender stereotypes about math can influence students’ gender stereotypes.

C. Teachers’ perceptions of their students’ math abilities tend to be accurate.

D. Teachers’ beliefs about their students math potential predicts students interest for both males and females.

Ans: A

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: What Are Some Biases Common in Sex and Gender Research?

Difficulty Level: Easy

42. All of the following are TRUE of women’s representation in STEM fields EXCEPT \_\_\_\_\_\_.

A. 26% of workers in STEM fields were women in 2011

B. women’s representation in STEM fields is currently decreasing

C. women earned 40% of all doctorates in the sciences and engineering in 2006

D. women constitute about 8% of full professors in both the physical sciences and mathematics

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Application

Answer Location: Designing the Studying Collecting Data

Difficulty Level: Hard

43. Research studying discrimination in hiring in STEM fields would predict what kind of bias when employers evaluate male and female candidates with equal qualifications?

A. a strong hiring bias favoring women

B. a strong hiring bias favoring men

C. Researcher has found no evidence of bias in either direction.

D. Predictions based upon the literature are difficult because studies have found hiring biases in both directions.

Ans: D

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: What Are Some Biases Common in Sex and Gender Research?

Difficulty Level: Easy

44. The literature examining gender discrimination in STEM has found each of the following EXCEPT \_\_\_\_\_\_.

A. women are more likely to experience hostile and benevolent sexism

B. faculty evaluating hypothetical job candidates prefer female applicants at a 2:1 ratio over male candidates

C. participants are twice as likely to hire a male candidate for a job that requires math

D. female and male science professors view male lab manager applicants as more competent than female applicants

Ans: A

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: Interpreting and Communicating the Results

Difficulty Level: Easy

45. Women tend to prefer activities and jobs that emphasize \_\_\_\_\_\_.

A. abstract reasoning

B. interpersonal skills

C. the use of fine motor skills

D. working with machines

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: How Do We Address the Challenges in Sex and Gender Research?

Difficulty Level: Easy

46. One study cited in this chapter found that interest in STEM careers correlated negatively with \_\_\_\_\_\_ goals.

A. extrinsically motivated

B. intrinsically motivated

C. agentic

D. communal

Ans: D

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: How Do We Address the Challenges in Sex and Gender Research?

Difficulty Level: Easy

47. Examining males’ and females’ interests within different STEM sub-disciplines reveals what pattern?

A. Males show more interest in all STEM disciplines.

B. Females show more interest in STEM disciplines that emphasize agency and autonomy.

C. Females are more likely to take STEM classes that are less math-intensive.

D. Males are more likely to take STEM classes that involve interpersonal interactions.

Ans: C

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Application

Answer Location: **Sex, Gender, and STEM Fields**

Difficulty Level: Hard

48. Robertson and colleagues (2010) followed top-performing math and science students from youth through adulthood, finding what work related difference as subjects reached their mid-30s?

A. Men and women divide labor in and outside the home roughly equally with their partners.

B. Women were willing to work fewer hours due to increased family obligations.

C. Women reported less job satisfaction in jobs demanding more than 40 hr work weeks.

D. Men preferred jobs that limited their ability to be present in the home.

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: **Sex, Gender, and STEM Fields**

Difficulty Level: Medium

49. Women seeking success in STEM often disproportionately face what additional responsibility compared to men?

A. household labor

B. finance management

C. committee work

D. mentoring

Ans: A

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: **Sex, Gender, and STEM Fields**

Difficulty Level: Medium

50. Each of the following pose possible explanations for women’s underrepresentation in STEM EXCEPT \_\_\_\_\_\_.

A. discrimination

B. differences in average levels general intelligence

C. gendered family responsibilities

D. differences in interests and preferences

Ans: B

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: Diversity Issues in the Study of Sex and Gender

Difficulty Level: Medium

# True/False

1. Men and women do not differ significantly in average levels of general intelligence.

Ans: T

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Knowledge

Answer Location: What Is the Meaning of Difference?

Difficulty Level: Easy

2. Boys consistently outperform girls when it comes to school math grades.

Ans: F

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: The Scientific Method

Difficulty Level: Medium

3. Larger sex differences in reading ability tend to emerge in countries with greater gender equality.

Ans: T

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: What Are the Primary Methods Used in Sex and Gender Research

Difficulty Level: Easy

4. Verbal reasoning is an exception to the general trend toward female advantage in verbal abilities.

Ans: T

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Comprehension

Answer Location: Correlational Research

Difficulty Level: Medium

5. Sex differences favoring males in tests of quantitative ability are found consistently across culture.

Ans: F

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Experimental Designs

Difficulty Level: Easy

6. Sex differences favoring males in mental rotation range from moderate to large.

Ans: T

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: Qualitative Research Methods

Difficulty Level: Easy

7. Evidence supporting the greater male variability hypothesis cannot be explained by environmental factors.

Ans: F

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Effect Sizes

Difficulty Level: Medium

8. When there is a great deal of variability within groups then effect sizes tend to be smaller.

Ans: T

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Overlap and Variance

Difficulty Level: Medium

9. Greater within group variance among tests for men’s cognitive abilities means there will be fewer men among the top scorers on cognitive tests and fewer among the lowest.

Ans: F

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Knowledge

Answer Location: Effect Sizes

Difficulty Level: Easy

10. Making gender salient during testing can lower women’s math performance.

Ans: T

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: How Do We Address the Challenges in Sex and Gender Research?

Difficulty Level: Easy

11. Asking how negative stereotypes about women’s math abilities can artificially lower their math performance is a good example of someone operating from the female deficit model.

Ans: F

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: Identifying the Research Question

Difficulty Level: Medium

12. Research shows that girls are more likely to give up after academic failures than boys.

Ans: F

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Comprehension

Answer Location: Designing the Study and Collecting Data

Difficulty Level: Medium

13. Children of parents with math anxiety are more likely to exhibit math anxiety themselves, but only if their parents frequently help them with their homework.

Ans: T

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: Interpreting and Communicating the Results

Difficulty Level: Easy

14. Evidence of gender discrimination consistently points to clear biases favoring men in hiring and promotion across STEM fields.

Ans: F

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: Guidelines for Gender Fair Research Design

Difficulty Level: Easy

15. On average, women’s STEM careers are more impacted than men’s by family household responsibilities.

Ans: T

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: Diversity Issues in the Study of Sex and Gender

Difficulty Level: Easy

# Short Answer

1. Jorm and colleagues (2004) found that controlling for men’s better health and what effects on sex differences?

Ans: Controlling for men’s better health diminished sex differences on certain cognitive tests where males had an advantage, but it did not diminish differences on cognitive tests where females had advantages.

Learning Objective: 7-1: Explain the historical origins of research on sex differences in cognitive abilities.

Cognitive Domain: Knowledge

Answer Location: What Is the Meaning of Difference?

Difficulty Level: Easy

2. What is the typical sex difference in visual-spatial skills? Describe one piece of evidence supporting a nurture explanation of this difference and one piece of evidence supporting a nature explanation.

Ans: Males typically perform better on visual-spatial tasks. One possible explanation for this difference is that boys tend to play more games that involve hand eye coordination than girls. Another possible explanation is that prenatal exposure to androgens may increase spatial performance.

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Knowledge

Answer Location: The Scientific Method

Difficulty Level: Easy

3. How consistent are sex differences in math, verbal, and visual-spatial performance across culture? How does the cross-cultural consistency of these differences relate to the nature versus nurture debate?

Ans: Sex differences in verbal and visual-spatial performance are fairly consistent across culture. Differences in math performance vary greatly across culture. The greater cross-cultural consistency observed, the more this is indicative of nature explanations of sex differences.

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Effect Sizes

Difficulty Level: Medium

4. Explain how greater male variability on cognitive tests would impact sex differences on those tests.

Ans: If males show greater variability on cognitive test, then sex differences will be more pronounced in the high and low tales of the distributions.

Learning Objective: 7-3: Evaluate contextual and individual difference factors that can influence cognitive performance.

Cognitive Domain: Comprehension

Answer Location: Overlap and Variance

Difficulty Level: Medium

5. How does Diane Halpern’s biopsychosocial model describe the relationship between biology and environment in explaining sex differences in cognitive ability?

Ans: The biopsychosocial model argues that biology and environment are inextricably linked and mutually shave each other to produce cognitive abilities. Biology may cause people to seek out different environments which in turn may create experiences that alter neurons and structures in the brain.

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: What Are Some Biases Common in Sex and Gender Research

Difficulty Level: Easy

6. Describe two factors that influence the size of stereotype threat effects.

Ans: Possible answers include: subtle cues tend to elicit stronger stereotype threat than subtle cues because they are more difficult to attribute to discrimination. The effects of stereotype threat on math performance are weaker for women who identify very strongly with math. Stereotype threat effects diminish for women who have greater working memory capacity. Self-affirmation tasks, such as writing about personal values, diminish stereotype threat effects.

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Knowledge

Answer Location: How Do We Address the Challenges in Sex and Gender Research?

Difficulty Level: Easy

# Essay

1. Briefly describe differences in how men and women respond to feedback.

Ans: Women tend to be more responsive than men to feedback, both good and bad. In contrast, men are more inclined to selectively acknowledge positive feedback while ignoring negative feedback.

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Analysis

Answer Location: Sex and Gender

Difficulty Level: Medium

2. What is stereotype threat, how does it operate, and how might it affect women’s performance on certain cognitive tests? What are some examples of factors that moderate the effects of stereotype threat and describe what can be done to diminish its effects.

Ans: Stereotype threat is a feeling of anxiety that people experience when they are at risk of confirming a negative stereotype about a group to which they belong. It may negatively impact women’s performance tests of math performance when stereotypes about women’s math abilities are made salient, producing anxiety. Stereotype threat effects tend to be stronger for subtle reminders than blatant reminders of stereotypes about women’s math aptitude. The effects are also moderated by how strongly women identify with math with women both high and low on math identification being less affected than women who moderately identify with math. Researchers have found that self-affirmation tasks, such as writing about one’s most important values, can diminish the effects of stereotype threat. Reminding women that sex differences in math may result from life experience rather than genes also has been shown to counteract stereotype threat effects.

Learning Objective: 7-2: Analyze the specific domains of cognitive performance that show sex similarities and differences.

Cognitive Domain: Analysis

Answer Location: What Are the Primary Methods Used in Sex and Gender Research?

Difficulty Level: Medium

3. What are the three different areas of cognitive ability that researchers have examined extensively for sex differences? Describe the size and direction of sex differences within each of these areas. Note if there any exceptions to the general sex differences observed within each of these three domains of cognitive ability and why they do not display the typical sex difference.

Ans: Researchers have examined sex differences and verbal, math, and visual-spatial performance. In general, females tend to outperform males on verbal tasks with effect sizes ranging from small to moderate. The exception to this pattern is verbal reasoning which displays a very small male advantage or no sex difference. One possible reason for this exception is that verbal reasoning tasks often require people to transform verbal information mentally. Males tend to outperform females on spatial tasks with effect sizes ranging from moderate to large. One exception to this difference is in spatial location memory, which shows a small sex difference favoring females. One explanation from evolutionary psychology is that special location memory was especially important to ancestral women who often forage for food, vegetables, and roots over large geographic regions. There is great cross-cultural variability in sex differences in math performance, with only small differences favoring boys in complex math problems sometimes emerging in countries with low gender equality.

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Analysis

Answer Location: Our (Interdisciplinary) Psychological Approach

Difficulty Level: Medium

4. Describe the current state of women’s representation in STEM fields. Describe three different possible explanations for the current state of women’s representation in STEM. Discuss at least one study showing evidence relevant to each of the explanations you provide.

Ans: Women represent only about a quarter of workers in STEM fields and account for small percentages of full professors in fields such as engineering, physical science, and mathematics. One possible explanation for women’s underrepresentation in STEM is discrimination, either overt or subtle. One study, for instance, found that participants were twice as likely to hire a man compared to a woman for a job that required math skills. However, another study asking faculty members to evaluate hypothetical job candidates found a two to one hiring bias favoring female candidates in STEM positions. Other evidence for the role of discrimination in women’s underrepresentation in STEM is similarly mixed. Another possibility is that women’s underrepresentation is driven by differences in interests between men and women. For instance, one study found that women prefer jobs that emphasize communal goals and that preference for communal goals is negatively related to pursuing STEM careers. Finally, women may be less likely to pursue careers in STEM because traditional divisions of labor place higher proportions of household and family responsibilities upon women. For instance, one study found that women were more likely than men to work fewer hours in order to take on more household responsibilities.

Learning Objective: 7-4: Apply research on gender and cognitive performance to real-world issues, such as gender disparities in educational systems, school performance, and STEM disciplines.

Cognitive Domain: Analysis

Answer Location: Guidelines for Gender Fair Research Design

Difficulty Level: Medium