1. Malia has an assignment to write a research paper for a class. She has several weeks to work on the paper before turning in the finished product. $(\overline{\chi} = 2.5)$

Part A

Explain how each of the following could apply to Malia's completion of the assignment.

- · Albert Bandura's theory of self-efficacy
- · A low score on the Big Five trait of neuroticism
- External locus of control
- Divergent thinking
- · Efferent neurons

Part B

Malia's teacher, Mr. Barry, has many papers to grade. Explain how each of the following might apply to his success in grading the papers.

- Incentive theory
- · Crystallized intelligence
- 2. Mr. Gomez decides to conduct a study with his sixth-grade math class, after first obtaining informed consent. Half of his students happen to arrive early for class (group 1), so he uses the time to give them some extra problem-solving tips. The next week he compares their scores on a quiz with the scores of the students who arrived on time (group 2) and did not receive the tips. The students' grades are represented in the table below. Mr. Gomez comes to the conclusion that the problem-solving tips led to higher scores on the quiz. Mr. Gomez posts the table of grades on the door of his classroom to emphasize that the tips helped improve the student grades. (= 2.96)

Group 1	Grade on Quiz	Group 2	Grade on Quiz
Jaime	4	Lynda	3
Steven	5	Adam	4
Thomas	3	Sami	1
Elizabeth	3	Marlena	1
Marwa	7	Kiara	5
Frances	6	Caylin	4
Fekru	3	Darin	2
David	6	Chinami	4

- Identify the dependent variable presented in the study.
- Explain how the study could be modified to be an experiment.
- Compare the mode of group 1 to the mode of group 2.
- Identify the measure of central tendency that needs to be calculated to determine the standard deviation.
- Explain the ethical flaw that is explicitly presented in the study.
- Explain how metacognition could apply to the scenario.
- Suppose Mr. Gomez had conducted this study as an experiment without any flaws and obtained the same results and that the results were statistically significant. Explain how the findings depicted in the table above could support the theory of levels of processing.

1. Part A

Damian spends a great deal of time playing video games. He prefers complex games that require skill in moving from one level of competence to the next. He regularly compares his progress with that of his online friends and gets tips from them for more successful strategies. (x = 2.2)

Explain how each of the following psychological concepts applies to Damian's gaming behavior.

- Motor cortex
- Algorithm
- Reciprocity norm
- Monocular depth cue of interposition
- Mental set

Part B

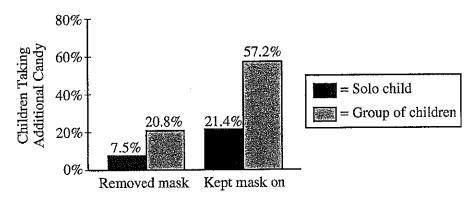
Damian's parents are concerned because Damian has been missing meals, has lost weight, and has made no effort to complete his college applications.

- Explain how Damian's parents could use a behavioral approach to get him to apply to college using a fixed-ratio schedule.
- Explain how a psychoanalyst would use free association with Damian.
- 2. Dr. Jones was doing a formal research study of the effect of mental imagery on memory. She randomly assigned students in the psychology course she was teaching into two groups and required them to complete the task as part of their coursework. Forty students were in each group. Each group was presented the same list of thirty word pairs (e.g., tree/book, house/street, friend/cat). Group A was told to form a mental image for each pair. Group B was not given that instruction. Each group was given two minutes to memorize the pairs of words. Dr. Jones then tested their recall of the list by giving each group the first word and asking them to remember the second word. Dr. Jones recorded the number of words recalled by each group and then debriefed the participants. The results are presented in the table below. (X = 3.0)

	Group A	Group B
Mean Number of Words Recalled	25	10
Standard Deviation	4	6

- Identify the independent variable presented in the study.
- Identify the control group.
- Explain why the type of research design being used is appropriate for this study.
- Explain what the different standard deviations indicate about the data from the two groups.
- Explain the ethical flaw that is explicitly presented in the scenario.
- Explain how the primacy effect could apply to this research.
- Explain how levels of processing are related to this research.

1. A psychologist conducted a study at her home during an annual activity of children wearing masks and going door-to-door receiving candy. Some of the children arrived alone, while others arrived in a group. Over the course of the night, the psychologist asked half of the children to remove their masks when they arrived at her door. The remaining half kept their masks on. The psychologist told every child to take only one piece of candy. She then went inside the house, leaving the bowl of candy outside. This gave children the opportunity to take additional candy. The psychologist measured the percentage of children who took additional candy. The psychologist's hypotheses were that children would take more candy when they were alone and that children would take more candy when they were masked. The results are shown in the graph below; assume all differences are significant.



- A. Identify the operational definition of the dependent variable in this study.
- B. Explain how the data support or do not support each of the psychologist's hypotheses.
- C. Explain why the psychologist cannot generalize her findings to all children.
- D. Explain why the study is not a naturalistic observation.
- E. Explain how each of the following might have played a role in the children's behavior.
 - Modeling
 - Deindividuation
 - Lawrence Kohlberg's preconventional stage
- 2. As a senior in high school, Ludy worked as an assistant to the children's librarian in his town library. He enjoyed shelving the books in the library because he was able to work alone and focus on his task. Although the library was normally a quiet place, sometimes the children's section became quite noisy when groups of children visited. After working in an unfulfilling desk job for 30 years, Ludy recalls how much he enjoyed working at the library and decides to go back and work as a volunteer creating new programs for disadvantaged children.

Describe how each of the following concepts relates to Ludy's return to working at the library.

- Crystallized intelligence
- Altruism
- Big Five trait of extraversion
- Broca's area
- Self-efficacy
- Episodic memory
- Self-actualization

2019 AP® PSYCHOLOGY FREE-RESPONSE QUESTIONS



1. Professor Menendez conducted an experiment to investigate the effects of a new medication for treating the symptoms of obsessive-compulsive disorder. (\(\overline{\times} = 1.8 \)

Part A

Explain the concept of compulsion in the context of obsessive-compulsive disorder.

Part B

Explain why each of the following would be used in this experiment to help establish cause and effect.

- · Random assignment
- Placebo condition

Part C

Professor Menendez presented the research at an international conference. After the presentation, audience members met in small groups to discuss the research.

Explain how each of the following may affect the attendees' discussion of the research.

- Groupthink
- Display rules
- Belief perseverance
- Cocktail party effect
- 2. Karl is planning for finals week at college. He has exams in four classes and has a group project in one of his classes. $(\overline{x} = 2.0)$

Part A

Provide a specific application of how each of the following could help Karl succeed on the four exams.

- State-dependent memory
- Distributed practice
- Long-term potentiation
- Self-efficacy

Part B

Provide a specific application of how each of the following could <u>hinder</u> Karl's contribution to the success of the group project.

- Convergent thinking
- Informational social influence
- Defense mechanism of regression