

Ch. 1 - The Evolution of Psychology

Imagine that you have gone to visit your PSYC 1001 professor during his office hours and find out that he has a time machine in his office. He explains that the time machine works, except for a programming glitch that restricts the destination of the machine. This particular time machine can only travel to the laboratories of past psychology researchers. Seeing as you are an avid first-year psychology student, you boldly ask your professor if you can take a ride to a past laboratory. Surprisingly, he agrees, so you hop in, ready to travel back in time.

1. You choose to travel back to Vienna in the early 1900s to talk to Sigmund Freud. You enter his office when he is in a session with a patient. Which of the following would you NOT expect to hear?

- A. The patient describing the dream she had last night in great detail.
- B. Freud asking his patient why she believes she dreamed about her cat eating a mouse.
- C. Freud asking the patient to describe the behaviours of the characters in her dream.
- D. The patient asking Freud what he thinks of her dream about her cat eating a mouse.

ANSWER: B

2. You travel to the office of B. F. Skinner. You ask him how he thinks you can stop your bad habit of biting your nails. What does he suggest you do?

- A. Scare yourself with stories about terrible illnesses and infections caused by nail-biting.
- B. Paint a vomit-inducing polish on your nails so you will learn to associate nail-biting with vomiting.
- C. Reward yourself every time you make it a week without biting your nails.
- D. Think about the reason why you bite your nails and work to correct that instead.

ANSWER: C

3. When you visit _____, he explains that your roommate is most likely stealing your food because _____.

- A. Abraham Maslow; his physiological needs are greater than his need for self-esteem
- B. Carl Rogers; his physiological needs are greater than his need to be accepted
- C. Carl Rogers; his need for achievement is greater than his need to be accepted
- D. Abraham Maslow; he has met the steps of the needs hierarchy before his need to be accepted

ANSWER: A

4. You (and most other individuals) are under the impression that humans have the power to choose their own beliefs and behaviours. When you mention this to _____, he disagrees and you get into a heated argument about your beliefs and his controversial theories.

- A. Abraham Maslow
- B. B.F. Skinner
- C. Wilhelm Wundt
- D. Sigmund Freud

ANSWER: B

Raphael and Paxton are roommates. Because they're both psychology majors, they choose to dress up as their favourite early psychologists for a Halloween party in their building. They also challenge one another to act like these psychologists all night, and the first one to break character has to take out the trash until the end of semester.

1. Raphael's friend Samantha says that her best friend just started dating the guy Samantha had a crush on. Raphael asks Samantha, "And how did that make you feel?" Who is Raphael dressed as?

- A. Rene Descartes
- B. Wilhelm Wundt
- C. Max Wertheimer
- D. William James

ANSWER: B

2. Paxton is listening to his friend Nadav who is telling him about how worried he is that he will fail his physics class. Paxton reassures him by saying, "Our mind expands to accommodate new information. So, keep studying as hard as you can, and you'll learn the material!" Who is Paxton dressed as?

- A. Rene Descartes
- B. E.B. Titchener
- C. G. Stanley Hall
- D. William James

ANSWER: D

3. Imagine that Paxton is dressed as Wilhelm Wundt and supports the theory of structuralism all evening. Whereas Raphael is dressed as William James and supports functionalism. They get into a few arguments. When their friend Nadav asks them if they agree on anything, how do they respond?

- A. "No. We are forever doomed to trying to prove each other wrong."
- B. "Yes, introspection."
- C. "Yes, systematic observation."
- D. "Yes, stream of consciousness."

ANSWER: C

Lucas is a 4th year student at Carleton studying psychology and is now considering more seriously his future and the career options he has. He is currently completing his undergraduate thesis (a big research project many psychology majors complete before they graduate). Lucas' research is investigating how subjective feelings of fear activate the autonomic nervous system.

1. If Lucas decides to get a Ph.D. in psychology after he graduates, he is most likely going to be employed in _____.

- A. the private sector
- B. a college or a university
- C. a hospital or a clinic
- D. the government

ANSWER: A

2. Lucas is not sure about what to do after graduation, so he decides to book an appointment for career counselling. Lucas is going to be meeting with a psychologist specializing in _____.

- A. clinical psychology
- B. counselling psychology
- C. educational and school psychology
- D. industrial and organizational psychology

ANSWER: B

3. Which major area of contemporary psychology does Lucas' thesis belong to?

- A. Social psychology
- B. Psychometrics
- C. Physiological psychology
- D. Cognitive psychology

ANSWER: C

4. While conducting his thesis, Lucas made sure that all his research methods were empirical in nature. This means that the conclusions he reached were based on _____.

- A. reasoning
- B. traditional beliefs
- C. speculation
- D. observation

ANSWER: D

Dean, Sam, and Cas are all best friends and decided to dress up as famous psychologists for Halloween. Dean dressed up as Sigmund Freud, Sam dressed as Carl Rogers, and Cas dressed as B.F. Skinner. They decided to not only dress up as those famous psychologists but also adapt their beliefs about psychology for the night.

1. At some point, Dean, Cas, and Sam spend some time talking to their friend Alia who aspires to be a famous singer. What is Cas most likely to say about Alia's aspiration to become a singer?

- A. Alia wants to be a singer because she unconsciously craves the attention she didn't receive from her mother as a child.
- B. Alia wants to be a singer because she wants to reach her full potential and grow as a person.
- C. The positive feedback Alia receives from other people when she sings has reinforced her habit of singing.
- D. Alia was born with an innate talent and passion for music and singing.

ANSWER: C

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- A. Alia wants to be a singer because she unconsciously craves the attention she didn't receive from her mother as a child.
- B. Alia wants to be a singer because she wants to fulfill her full potential and grow as a person.
- C. The positive feedback Alia receives from other people after she sings has reinforced her habit of singing.
- D. Alia was born with an innate talent and passion for music and singing.

ANSWER: A

3. At some point, Dean, Cas, and Sam spend some time talking to their friend Alia who aspires to be a famous singer. What is Sam most likely to say about Alia's aspiration to become a singer?

- A. Alia wants to be a singer because she unconsciously craves the attention she didn't receive from her mother.
- B. Alia wants to be a singer because she wants to fulfill her full potential and grow as a person.
- C. The positive feedback Alia receives from other people after she sings has reinforced her habit of singing.
- D. Alia was born with an innate talent and passion for music and singing.

ANSWER: B

4. Later in the night, Sam gets into an argument with Dean. What are they most likely going to argue about?

- A. Sam is going to accuse Dean of being too negative and only seeing the worst in people.
- B. Dean is going to accuse Sam of being too negative and only seeing the worst in people.
- C. Dean thinks nature has a bigger impact on behaviour than nurture and Sam thinks the opposite.
- D. Sam thinks nature has a bigger impact on behaviour than nurture and Dean thinks the opposite.

ANSWER: A

5. Sam, Dean, and Cas get into a philosophical argument about freedom. Which of the three friends is most likely to say that humans do not have free will and that we are all products of our environment?

- A. Sam, who is dressed up as Carl Rogers.
- B. Dean, who is dressed up as Sigmund Freud.
- C. Cas, who is dressed up as B.F. Skinner.
- D. All three of them are equally likely to say this.

ANSWER: C

6. During the party, Jason tries to light up a candle with a match and burns his finger in front of Sam, Dean, and Cas. Which of the three friends is most likely to predict that Jason will not use another match ever again out of fear of burning his finger again?

- A. Sam, who is dressed up as Carl Rogers.
- B. Cas, who is dressed up as B.F. Skinner.
- C. Dean, who is dressed up as Sigmund Freud.
- D. All three of them are equally likely to predict this.

ANSWER: B

7. During the party, Sarah gets upset and ends up sobbing uncontrollably in the bathroom. Which of the three friends is most likely to go to her, empathetically listen to her and treat her with unconditional positive regard?

- A. Sam, who is dressed up as Carl Rogers.
- B. Cas, who is dressed up as B.F. Skinner.
- C. Dean, who is dressed up as Sigmund Freud
- D. None of them is likely to do this.

ANSWER: A

8. The three friends get into an argument about what drives human behaviour. Which of them is most likely to say that in order to fully understand someone's behaviour, we need to consider that person's fundamental drive towards personal growth?

- A. Sam, who is dressed up as Carl Rogers.
- B. Cas, who is dressed up as B.F. Skinner.
- C. Dean, who is dressed up as Sigmund Freud.
- D. All three of them are equally likely to say this.

ANSWER: A

9. During the party, Adam walks over to where Sam, Dean, and Cas are talking. He notices that Sam has finished his drink and asks, "Can I kill your cup? I mean, fill your cup!" Which of the three friends is most likely to come up to the conclusion that Adam secretly hates Sam?

- A. Sam, who is dressed up as Carl Rogers.
- B. Cas, who is dressed up as B.F. Skinner.
- C. Dean, who is dressed up as Sigmund Freud.
- D. All three of them are equally likely to reach this conclusion.

ANSWER: C

Presho is a first-year psychology student at Carleton University. She moved to Ottawa from Calgary and has not yet made many friends in her classes. She decides to attend a games night meet-and-greet organized by the Psychology Society of Carleton University (PSCU) to connect with other Carleton psychology undergraduates. It just so happens that members of the Psychology Graduate Student Association (PGSA), are also attending. Presho decides to chat with as many students as possible to figure out what they like and dislike about their programs so far.

1. Presho meets a fourth-year undergraduate named Chelsie. Chelsie is volunteering on a project that is exploring the difference between transformational leadership and ethical leadership on the well-being of employees in the workplace. Chelsie's study is related to which stream of psychology research?

- A. Health
- B. Applied social
- C. Industrial/Organizational
- D. Forensic

ANSWER: C

2. Presho recognizes Vasia, her PSYC1001 teaching assistant, at the event. Vasia mentions she is completing a degree in neuroscience, but will also finish with a minor in psychology. She is most interested in studying the action of neurotransmitters in the pleasure centre of the brain. Vasia is fascinated by _____ psychology.

- A. biological
- B. evolutionary
- C. sociocultural
- D. psychodynamic

ANSWER: A

3. Presho meets Matt, who is a Ph.D. candidate who is studying the mental processes that students of varying ability (children, high schoolers, and university students) use to learn new math problems. Matt studies are related to which psychological approach?

- A. Behaviourism
- B. Cognitive
- C. Sociocultural
- D. Evolutionary

ANSWER: B

4. Presho recognizes a girl who lives in her residence named Erin. Erin is a Masters candidate who is looking at the psychological effects of skinny- and fat-shaming both when the individual hears it in person and experiences it via social media communication. Erin's study is focused in the _____ stream of psychology.

- A. evolutionary
- B. human-computer interaction
- C. applied social
- D. biological

ANSWER: C

5. Keltie is the president of the PGSA. She mentions to Presho that she is almost finished with her Ph.D. and is currently writing up the results of her final project, which explored the effects of child eyewitness testimony on jury decision-making. Keltie is studying _____ psychology.

A. sociocultural

B. evolutionary

C. forensic

D. cognitive

ANSWER: C

Ch. 2 - The Research Enterprise of Psychology

Arash wants to examine the relationship between stress and eating when someone is on a diet. He recruits an equal number of male and female participants to respond to a questionnaire about their eating habits, their typical mood, and their overall anxiety levels. Arash ensures half of his male participants and half of his female participants are on a diet and the other half are not. After the questionnaire, all participants are randomly assigned to complete one of two tasks. Half of the participants solve a difficult math problem in front of a group of math professors within a certain time limit. The other participants solve a simple arithmetic problem in a waiting area alone, with no time limit. After they perform the task, all participants are asked to complete one more questionnaire about their stress level while sitting next to a box of Timbits. Arash tells the participants to help themselves to the Timbits, and secretly counts how many Timbits the participant actually eats.

1. Which of the following is the most likely to be a hypothesis for Arash's experiment?

- A. If someone is on a diet they will eat more when they are stressed.
- B. Food and stress are positively correlated.
- C. There is no difference between participants who are and those who are not in a diet.
- D. Stress is the primary reason why people break their diets.

ANSWER: A

2. What type of study is Arash conducting?

- A. Naturalistic observation
- B. Case study
- C. Survey
- D. Experiment

ANSWER: D

3. What is the independent variable in Arash's study?

- A. The participants' gender.
- B. The participants' eating habits.
- C. The task difficulty.
- D. How many Timbits the participant eats.

ANSWER: C

4. What is the dependent variable in Arash's study?

- A. The participants' gender.
- B. The participants' eating habits.
- C. The task difficulty.
- D. How many Timbits the participant eats.

ANSWER: D

5. The control group in Arash's experiment includes only the _____ who performed the ____ math task.

- A. dieters; easy

- B. dieters; difficult
- C. non-dieters; easy
- D. non-dieters; difficult

ANSWER: C

6. Which of the following is NOT likely to be a confounding variable in Arash's experiment?

- A. The gender of the participants
- B. The math skill of the participants
- C. The dietary restrictions of the participants
- D. The shyness level of the participants

ANSWER: A

7. Arash found that regardless of whether the female participants were on a diet or not, there was a correlation of +0.70 between their reported stress level and the number of Timbits they ate. This is an example of a _____ correlation.

- A. strong
- B. moderate
- C. weak
- D. significant

ANSWER: A

8. The correlation between the number of Timbits the participants ate and how stressed they reported feeling is +0.70. What does this mean?

- A. There is not enough information given to answer the question.
- B. Participants who were most stressed generally ate more Timbits.
- C. Participants who were least stressed generally ate more Timbits.
- D. Participants ate a lot of Timbits regardless of how stressed they felt.

ANSWER: B

9. What is an advantage of the type of study Arash performed?

- A. It is easy and fast to perform such a study.
- B. You can get a lot of detailed information about the participants.
- C. You can establish causal relationships between variables.
- D. Any change in the dependent variable is entirely due to the independent variable(s).

ANSWER: C

Castiel is a psychologist who is interested in seeing how autonomic nervous system responses are related to subjective feelings of fear. Half the participants in Castiel's experiment watch a 10-minute graphic and violent video and the other half watch a 10-minute video of a baby kitten. While the participants are watching the video, Castiel gathers measurements of their skin conductance. After they finish watching the video the participants answer a questionnaire about their level of fear after watching the video as well as how they generally react to horror movies.

1. In Castiel's experiment what is the independent variable?

- A. The participants' skin conductance.
- B. The video the participants watched.
- C. The participants' general attitude towards horror movies.
- D. The participants' sex.

ANSWER: B

2. In Castiel's experiment what is the dependent variable?

- A. The participants' skin conductance.
- B. The video the participants watched.
- C. The participants' criminal record.
- D. The participants' sex.

ANSWER A

3. While watching the violent video one of the participants becomes very distressed and asks to leave. What should Castiel do?

- A. Allow the participant to leave.
- B. Tell the participant they can't leave because they signed an informed consent.
- C. Allow the participant five minutes to calm down and resume the experiment.
- D. Have the participant watch the kitten video instead.

ANSWER: A

4. When looking at his results, Castiel notices that a large majority of his participants responded that they generally enjoy watching horror movies. The distribution of these participants in terms of their enjoyment of horror movies would be a _____.

- A. symmetrical distribution
- B. positively skewed distribution
- C. negatively skewed distribution
- D. a skewed distribution, but we can't tell whether it's positively or negatively skewed unless we see the graph

ANSWER: C

5. What type of testing is the skin conductance test Castiel performed on the participants?

- A. Psychometric
- B. Neuroscientific
- C. Medical
- D. Physiological

ANSWER: D

6. Which is the control group in the study?

- A. Participants who watched the violent video.
- B. Participants who watched the kitten video.
- C. Participants who watched the violent video and had low violent tendency scores.
- D. Participants who watched the kitty video and had low violent tendency scores.

ANSWER: B

7. Castiel's hypothesis in the experiment is: "If participants watch the _____ video their skin conductance will be _____ than those watching the other video and this will be _____ correlated with their subjective feelings of fear"

- A. kitten; lower; negatively
- B. violent; higher; positively
- C. violent; lower; negatively
- D. kitten; higher; positively

ANSWER: B

8. Castiel measured the participants' general violent tendencies in an attempt to control for _____.

- A. participants' reactivity levels
- B. extraneous variables
- C. confounding variables
- D. response bias

ANSWER: C

9. Castiel analyzes his results and comes to the conclusion that there is a strong positive correlation between subjective feelings of fear and autonomic nervous system response. What would be his next step?

- A. Present his data at a conference.
- B. Publish his data in a scientific journal.
- C. Obtain ethics approval.
- D. Publish his data in a textbook.

ANSWER: B

10. Before dividing his participants into those who watched violent videos versus those who watched kitten videos, Castiel notices that the distribution of his participants' skin conductance scores appears to be normal. The distribution of these participants in terms of their skin conductance would be a _____.

- A. symmetrical distribution
- B. positively skewed distribution
- C. negatively skewed distribution
- D. a skewed distribution, but we can't tell whether it's positively or negatively skewed unless we see the graph.

ANSWER: A

Jordan is a developmental psychologist who studies bullying and aggression in elementary school students. Her days often consist of spending time in the schoolyard with the children and making careful notes of their interactions. She pays particular attention to incidents of bullying in the schoolyard and is trying to find personality characteristics that are associated with bullying. In her most recent study, she found that being a bully is negatively correlated with academic performance at the 0.05 level of significance.

1. What type of research is Jordan conducting?

- A. Experimental
- B. Naturalistic Observation
- C. Case Study
- D. Direct Observation

ANSWER: B

2. Which of the following is an accurate representation of Jordan's findings in her latest study?

- A. Being a bully causes a child to have bad grades.
- B. Having bad grades causes a child to be a bully.
- C. There is an association between being a bully and having low grades.
- D. There is no significant association between being a bully and having low grades.

ANSWER: C

3. When performing a statistical analysis of acts of aggression she observed, Jordan plots her data against aggressive personality traits and notices a positively skewed distribution. This means that Bob (who has the most aggressive traits of any child in the schoolyard) instigated _____.

- A. more acts of aggression than other students at the school
- B. fewer acts of aggression than other students at the school
- C. exactly the same amount of acts of aggression as other students at the school
- D. acts of aggression, but we cannot make any inferences based only on the shape of the distribution

ANSWER: B

4. Jordan's results in her latest study are _____.

- A. statistically significant
- B. theoretically significant
- C. practically significant
- D. statistically, theoretically, and practically significant

ANSWER: A

5. Which of the following is widely considered the greatest limitation in Jordan's experiment?

- A. The halo effect, which leads Jordan to be too lenient when she rates children's aggressive behaviours.
- B. Jordan does not know the children well enough to make inferences about their behaviours.
- C. Jordan cannot reliably explain any patterns of behaviour she might observe.
- D. The setting where Jordan makes her observations is contrived and relatively artificial.

ANSWER: C

6. Which of the following is an advantage to Jordan's study?

- A. She can accumulate deep knowledge about each child, which will allow her to assess cause-and-effect relationships.
- B. It is relatively easy to collect systematic and consistent observations and translate it to numerical data.
- C. It can be a good starting point when little is known about a certain phenomenon.
- D. There is relatively small chance of having an experimenter or sampling bias.

ANSWER: C

7. To reduce the chance of reactivity Jordan should _____.

- A. observe the children from a distance and not interact with them
- B. tell the children that she is studying something unrelated to what she is actually studying
- C. get to know each child personally before she starts observing them
- D. talk to the teachers in advance so she knows which students to pay more attention to

ANSWER: A

8. One of the teachers wants to talk to Jordan about the students. What should Jordan do?

- A. Listen to the teacher and include the teacher's opinion in her data.
- B. Avoid talking to the teacher to eliminate the possibility of experimenter bias.
- C. Recruit the teacher to make observations about the students with her.
- D. Avoid talking to the teacher due to ethical concerns.

ANSWER: B

9. Which of the following represents an operational definition of bullying Jordan could use in her study?

- A. The aggressive personality traits for each student.
- B. The number of times a student attempted to assault another student.
- C. A student's general aggressive attitude towards other students.
- D. A combination of a student's general aggressive attitude and how the other students viewed them.

ANSWER: B

10. Which of the following was the control group in Jordan's latest study?

- A. The students who were not aggressive.
- B. The students who were aggressive.
- C. The students who were aggressive, but had good grades.
- D. There was no control group.

ANSWER: D

Janus wanted to see if people are more attracted to individuals with symmetrical faces compared to individuals with asymmetrical faces. Janus recruited heterosexual male and female participants for his experiment. Janus showed the participants pictures of people whose faces were modified to be more symmetrical or less symmetrical than they actually are and asked the participants to press a green button if they found the picture attractive and a red button if they did not. The participants were shown a single picture at a time and each picture was shown to them for five seconds.

1. Which of the following is a dependent variable in Janus' experiment?

- A. The sex of the participants.
- B. The sexual orientation of the participants.
- C. The button selections the participants make.
- D. The picture the participant was shown.

ANSWER: C

2. Which of the following is the independent variable in Janus' study?

- A. The sex of the participants.
- B. The sexual orientation of the participants.
- C. The button selections the participants make.
- D. The photos each participant was shown.

ANSWER: D

3. Which of the following is a possible confounding variable?

- A. The participants' sex
- B. The participants' sexual orientation.
- C. The participants' own appearance.
- D. The participants' culture and ethnicity.

ANSWER: D

4. Janus found a strong positive correlation between face symmetry and how attractive the face was perceived by participants. This means that _____.

- A. humans are more likely to be attracted to someone with a symmetrical face
- B. humans will not be attracted to someone unless they have a symmetrical face
- C. Face symmetry is the most important factor in human attraction
- D. if you have a symmetrical face it will be easier to get a date

ANSWER: A

6. What type of research did Janus perform?

- A. Naturalistic observation.
- B. Experimental.
- C. Psychometric test.
- D. Physiological test.

ANSWER: B

7. What is Janus' operational definition of attractiveness?

- A. The symmetry of a face.
- B. The likelihood of a participant pressing the green button in response to a face.
- C. The asymmetry of a face.
- D. The likelihood of a participant pressing the green button in response to an asymmetrical face.

ANSWER: B

Rhea is in graduate school studying social psychology and is doing research on the social desirability bias. In her experiment, participants are first asked to fill out a survey about how honest they are. They are then told to take a seat in the hallway (where there is only one chair) before the next part of their experiment. Unbeknownst to the participants, the chair is modified and will break the moment someone sits on it. Also, the waiting room is being filmed by a hidden camera. Half of the participants sit on the chair and break it. For the other half of the participants, a confederate walks in at the same time as the participant and sits on the chair before the participant has the chance. The confederate breaks the chair and leaves immediately after without saying anything to the participant. In both cases, after 10 minutes, Rhea comes out and asks the participant about the chair and records whether they lied or not.

1. According to the social desirability bias, participants will typically score _____.
- A. higher on the honesty measure in the survey compared to the interview
 - B. lower on the honesty measure in the survey compared to the interview
 - C. the same on the honesty measure in the survey compared to the interview
 - D. in a manner that is correlated with their personality and not with other participants' responses

ANSWER: A

2. What should Rhea do after the end of the experiment?
- A. Have the participants sign a confidentiality agreement.
 - B. Debrief the participants about the deception.
 - C. Make sure not to mention the deception to avoid sample bias.
 - D. Offer the participants a monetary reward in exchange for their suffering.

ANSWER: B

3. What is the independent variable in Rhea's experiment?
- A. The participants' scores in the honesty survey.
 - B. Whether or not the participants lied after the chair broke.
 - C. Whether the participant or the confederate broke the chair.
 - D. How sincere the participants looked when they lied, if they lied.

ANSWER: C

4. What is the dependent variable in Rhea's experiment?
- A. The participants' scores in the honesty survey.
 - B. Whether or not the participants lied after the chair broke.
 - C. Whether or not the chair would break.
 - D. How sincere the participants looked when they lied.

ANSWER: B

5. How are the participants most likely going to react after they find out about the deception?
- A. They will experience significant distress.
 - B. They will find it amusing and laugh about it.
 - C. They will be less likely to participate in other psychology experiments.
 - D. They will be very angry and aggressive towards Rhea.

ANSWER: B

6. In order to avoid experimenter bias, which of the following phrases should Rhea NOT use when asking the participants who sat down the chair and broke it?

- A. "Did you break the chair?"
- B. "Why did you break the chair?"
- C. "Do you know what happened to the chair?"
- D. "Did someone else walk in and break the chair?"

ANSWER: D

7. What could Rhea do to avoid experimenter bias?

- A. Have someone else ask participants what happened to the chair.
- B. Talk only to the participants in the control group.
- C. Ensure an equal number of male and female participants.
- D. Avoid looking in the participants' eyes when she talks to them.

ANSWER: A

Fidan is studying a model of obesity. For her experiment, Fidan uses three groups of 31 rats each that are given either (1) 24-hour access to high calorie treat food in addition to their normal chow, (2) restricted 8-hour access to high calorie treat food and 24-hour access to their normal chow, or (3) 24-hour access to only their normal chow. Every day, Fidan weighs the animals and carefully takes note of the amount and type of food each animal has consumed. At the end of the experiment, Fidan performs surgery on all the animals and notices that the animals that put on the most weight showed noticeable differences in their hypothalamus compared to the rest of the rats.

1. Which is the control group in Fidan's experiment?

- A. The rats that had 24-hour access to both high calorie treat food and their normal chow.
- B. The rats that had restricted access to high calorie treat food and unlimited access to their normal chow.
- C. The rats that had unlimited access only to their normal chow.
- D. There was no control group.

ANSWER: C

2. What was the dependent variable in Fidan's experiment?

- A. The amount of time the rats had access to high-calorie treat food.
- B. The type of food the rats consumed.
- C. The group each rat belonged to.
- D. The weight of the rats at the end of the experiment.

ANSWER: D

3. Which of the following is a hypothesis for Fidan's experiment?

- A. If rats are given more access to high calorie treat food they will put on more weight.
- B. More access to cafeteria style food causes rats to put on more weight.
- C. There is a correlation between how much access a rat is given to high calorie treat food and their weight.
- D. The hypothalamus of rats is associated with the consumption of high calorie treat food.

ANSWER: A

4. Every day, Fidan weighs each rat. What does it mean when she says one of the rats scores at the 70th percentile of weight?

- A. The rat has 70% more weight than the average.
- B. The rat weighs more than 70% of the other rats.
- C. The rat weighs less than 70% of the other rats.
- D. The rat weighs more than 30% of the other rats.

ANSWER: B

5. Which of the following represents the mode in Fidan's experiment?

- A. The weight that the most rats had at the end of the experiment.
- B. The weight of the heaviest rat at the end of the experiment.
- C. The weight that exactly half the rats have at the end of the experiment.
- D. The weight that was equal to the central point of the weight distribution.

ANSWER: A

6. Which of the following represents the median weight of all the rats in Fidan's experiment?
- A. The weight that the most rats had at the end of the experiment.
 - B. The weight of the heaviest rat at the end of the experiment.
 - C. The weight of the 47th heaviest rat at the end of the experiment.
 - D. The weight that was equal to the central point of the weight distribution.

ANSWER: C