

## (SEC01-01E)

- Jan Gimsa, Robert Sleigh, and Ulrike Gimsa have hypothesized that the sail-like structure running down the back of the dinosaur *Spinosaurus aegyptiacus* improved the animal's success in underwater pursuits of prey species capable of making quick, evasive movements. To evaluate their hypothesis, a second team of researchers constructed two battery-powered mechanical models of *S. aegyptiacus*, one with a sail and one without, and subjected the models to a series of identical tests in a water-filled tank. Which finding from the model tests, if true, would most strongly support Gimsa and colleagues' hypothesis?
- A) The model with a sail took significantly longer to travel a specified distance while submerged than the model without a sail did.
- B) The model with a sail displaced significantly more water while submerged than the model without a sail did.
- C) The model with a sail had significantly less battery power remaining after completing the tests than the model without a sail did.
- D) The model with a sail took significantly less time to complete a sharp turn while submerged than the model without a sail did.

## (SEC01-02E)

- "Mr. Cornelius Johnson, Office-Seeker" is a 1900 short story by Paul Laurence Dunbar. In the story, the narrator describes Mr. Cornelius Johnson's appearance as conveying his exaggerated sense of his importance: \_\_\_\_\_. Which quotation from "Mr. Cornelius Johnson, Office-Seeker" most effectively illustrates the claim?
- A) He carried himself always as if he were passing under his own triumphal arch.
- B) The grey Prince Albert was scrupulously buttoned about his form, and a shiny top hat replaced the felt of the afternoon.
- C) Mr. Cornelius Johnson always spoke in a large and important tone.
- D) It was a beautiful day in balmy May and the sun shone pleasantly on Mr. Cornelius Johnson's very spruce Prince Albert suit of grey as he alighted from the train in Washington.

(SEC01-03E)

- Several studies of sediment (e.g., dirt, pieces of rock, etc.) in streams have shown an inverse correlation between sediment grain size and downstream distance from the primary sediment source, suggesting that stream length has a sorting effect on sediment. In a study of sediment sampled at more than a dozen sites in Alpine streams, however, geologists Camille Litty and Fritz Schlunegger found that cross-site variations in grain size were not associated with differences in downstream distance, though they did not conclude that downstream distance is irrelevant to grain size. Rather, they concluded that sediment influx in these streams may have been sufficiently spatially diffuse to prevent the typical sorting effect from being observed.

Which finding about the streams in the study, if true, would most directly support Litty and Schlunegger's conclusion?

- A) The streams contain several types of sediment that are not typically found in streams where the sorting effect has been demonstrated.
- B) The streams are fed by multiple tributaries that carry significant volumes of sediment and that enter the streams downstream of the sampling sites.
- C) The streams mostly originate from the same source, but their lengths vary considerably due to the different courses they take.
- D) The streams regularly experience portions of their banks collapsing into the water at multiple points upstream of the sampling sites.

(SEC01-04E)

- Pulitzer Prize-winning writer Héctor Tobar has built a multifaceted career as both a journalist and an author of short stories and novels. In an essay about Tobar's work, a student claims that Tobar blends his areas of expertise by applying journalism techniques to his creation of works of fiction.

Which quotation from a literary critic best supports the student's claim?

- A) For one novel, an imagined account of a real person's global travels, Tobar approached his subject like a reporter, interviewing people the man had met along the way and researching the man's own writings.
- B) Tobar got his start as a volunteer for El Tecolote, a community newspaper in San Francisco, and wrote for newspapers for years before earning a degree in creative writing and starting to publish works of fiction.
- C) Many of Tobar's notable nonfiction articles are marked by the writer's use of techniques usually associated with fiction, such as complex narrative structures and the incorporation of symbolism.
- D) The protagonist of Tobar's third novel is a man who wants to be a novelist and keeps notes about interesting people he encounters so he can use them when developing characters for his stories.

## (SEC01-05E)

- The Rock and the Sea is an 1893 poem by Charlotte Perkins Gilman. In the poem, a rock is portrayed as intending to confront and restrain the sea: \_\_\_\_\_

Which quotation from "The Rock and the Sea" most effectively illustrates the claim?

- A) I am the Rock. Black midnight falls; / The terrible breakers rise like walls; / With curling lips and gleaming teeth / They plunge and tear at my bones beneath.
- B) I am the Sea. The earth I sway; / Granite to me is potter's clay; / Under the touch of my careless waves / It rises in turrets and sinks in caves.
- C) I am the Sea. I hold the land / As one holds an apple in his hand, / Hold it fast with sleepless eyes, / Watching the continents sink and rise.
- D) I am the Rock, presumptuous Sea! / I am set to encounter thee. / Angry and loud or gentle and still, / I am set here to limit thy power, and I will!

## (SEC01-06E)

- Electra is a circa 420–410 BCE play by Sophocles, translated in 1870 by R.C. Jebb. Electra, who is in mourning for her dead father and her long-absent brother, is aware of the intensity of her grief but believes it to be justified: \_\_\_\_\_

Which quotation from Electra most effectively illustrates the claim?

- A) O thou pure sunlight, and thou air, earth's canopy, how often have ye heard the strains of my lament, the wild blows dealt against this bleeding breast, when dark night fails!
- B) I know my own passion, it escapes me not; but, seeing that the causes are so dire, will never curb these frenzied plaints, while life is in me.
- C) Send to me my brother; for I have no more the strength to bear up alone against the load of grief that weighs me down.
- D) But never will I cease from dirge and sore lament, while I look on the trembling rays of the bright stars, or on this light of day.

(SEC01-07E)

- Although many transposons, DNA sequences that move within an organism's genome through shuffling or duplication, have become corrupted and inactive over time, those from the long interspersed nuclear elements (LINE) family appear to remain active in the genomes of some species. In humans, they are functionally important within the hippocampus, a brain structure that supports complex cognitive processes. When the results of molecular analysis of two species of octopus—an animal known for its intelligence—were announced in 2022, the confirmation of a LINE transposon in *Octopus vulgaris* and *Octopus bimaculoides* genomes prompted researchers to hypothesize that the transposon family is tied to a species' capacity for advanced cognition.

Which finding, if true, would most directly support the researchers' hypothesis?

- A) The LINE transposon in *O. vulgaris* and *O. bimaculoides* genomes is active in an octopus brain structure that functions similarly to the human hippocampus.
- B) The human genome contains multiple transposons from the LINE family that are all primarily active in the hippocampus.
- C) A consistent number of copies of LINE transposons is present across the genomes of most octopus species, with few known corruptions.
- D) *O. vulgaris* and *O. bimaculoides* have smaller brains than humans do relative to body size, but their genomes contain sequences from a wider variety of transposon families.

(SEC01-08E)

- Hip-hop pedagogy is a form of teaching that's gaining popularity across school subjects. It involves incorporating hip-hop and rap music into lessons as well as using hip-hop elements when teaching other subject matters. For example, Quan Neloms's students look for college-level vocabulary and historical events in rap songs. Researchers claim that in addition to developing students' social justice awareness, hip-hop pedagogy encourages student success by raising students' interest and engagement.

Which finding, if true, would most strongly support the underlined claim?

- A) Courses that incorporate hip-hop and rap music are among the courses with the highest enrollment and attendance rates.
- B) Educators report that they enjoy teaching courses that involve hip-hop and rap music more than teaching courses that don't.
- C) Students tend to be more enthusiastic about rap music than they are about hip-hop music.
- D) Students who are highly interested in social justice issues typically don't sign up for courses that incorporate hip-hop and rap music.

(SEC01-09E)

- Many governments that regularly transfer money to individuals—to provide supplemental incomes for senior citizens, for example—have long done so electronically, but other countries typically have distributed physical money and have only recently developed electronic transfer infrastructure. Researchers studied the introduction of an electronic transfer system in one such location and found that recipients of electronic transfers consumed a different array of foods than recipients of physical transfers of the same amount did. One potential explanation for this result is that individuals conceive of and allocate funds in physical money differently than they conceive of and allocate funds in electronic form. Which finding from the study, if true, would most directly weaken the potential explanation?
- A) Recipients of electronic transfers typically spent their funds at a slower rate than recipients of physical transfers did.
- B) Some recipients of physical transfers received small amounts of money relatively frequently, while others received large amounts relatively infrequently.
- C) Recipients of physical transfers tended to purchase food about as frequently as recipients of electronic transfers did.
- D) Nearly every recipient of an electronic transfer withdrew the entire amount in physical money shortly after receiving the transfer.

(SEC01-10E)

- In the 1970s, a roughly 60,000-year-old piece of hyena bone marked with nine notches was discovered at a site in western France once inhabited by Neanderthals. Although many believe that only modern humans developed systems for notating numbers, one archaeologist asserts that this artifact may be a sign that Neanderthals also recorded numerical information. The notches on the bone are unevenly spaced but approximately parallel, and microscopic analysis reveals that they were made with a single stone tool; according to the archaeologist, this suggests that the notches were all made at one time by one individual as a means of counting something. Which finding, if true, would most directly weaken the underlined claim?
- A) Parallel lines are a common feature in modern humans' early systems for recording numerical information.
- B) More than nine approximately parallel notches made with a different stone tool are present on another artifact found at a site in western France.
- C) It would have taken careful effort to make evenly spaced lines on bone with the stone tools typically used by Neanderthals.
- D) Decorative art discovered at another Neanderthal site in western France primarily features patterns of unevenly spaced parallel lines.

(SEC01-11E)

- The Milky Way galaxy is composed of millions of stars in a relatively flat structure containing a thin disk and a thick disk. Based on computer simulations and analysis of data on the brightness, position, and chemical composition of about 250,000 stars in the thick disk (collected from two telescopes, one in China and one orbiting in space), astrophysicists Maosheng Xiang and Hans-Walter Rix claim that the thick disk of the Milky Way formed in two distinct phases rather than a single one.

Which finding, if true, would most directly support the researchers' claim?

- A) There's an age difference of about 2 billion years between certain stars in the thick disk.
- B) The stars in the Milky Way tend to have very similar chemical compositions.
- C) The thin disk contains about twice as many stars that can be seen from Earth as the thick disk does.
- D) The telescopes used by the researchers have detected stars of similar ages in galaxies other than the Milky Way.

(SEC01-12E)

- In the 1980s, many musicians and journalists in the English-speaking world began to draw attention to music from around the globe—such as mbaqanga from South Africa and quan họ from Vietnam—that can't be easily categorized according to British or North American popular music genres, typically referring to such music as "world music." While some scholars have welcomed this development for bringing diverse musical forms to prominence in countries where they'd previously been overlooked, musicologist Su Zheng claims that the concept of world music homogenizes highly distinct traditions by reducing them all to a single category.

Which finding about mbaqanga and quan họ, if true, would most directly support Zheng's claim?

- A) Mbaqanga is significantly more popular in the English-speaking world than quan họ is.
- B) Mbaqanga and quan họ developed independently of each other and have little in common musically.
- C) Mbaqanga and quan họ are now performed by a diverse array of musicians with no direct connections to South Africa or Vietnam.
- D) Mbaqanga and quan họ are highly distinct from British and North American popular music genres but similar to each other.



## (SEC01-13E)

- Sense and Sensibility is an 1811 novel by Jane Austen. In the novel, Austen describes Marianne Dashwood's ability to persuade others of the rightness of her artistic judgments, as is evident when Marianne visits with John Willoughby, a potential suitor: \_\_\_\_\_

Which quotation from Sense and Sensibility most effectively illustrates the claim?

- A) Above all, when she heard him declare, that of music and dancing he was passionately fond, she gave him such a look of approbation as secured the largest share of his discourse to herself for the rest of his stay.
- B) Their taste was strikingly alike. The same books, the same passages were idolized by each—or if any difference appeared, any objection arose, it lasted no longer than till the force of her arguments and the brightness of her eyes could be displayed.
- C) It was only necessary to mention any favourite amusement to engage her to talk. She could not be silent when such points were introduced, and she had neither shyness nor reserve in their discussion.
- D) They speedily discovered that their enjoyment of dancing and music was mutual, and that it arose from a general conformity of judgment in all that related to either. Encouraged by this to a further examination of his opinions, she proceeded to question him on the subject of books.

## (SEC01-14E)

- A researcher conducted an experiment inspired by studies suggesting that people may benefit from feeling frightened in certain circumstances, such as when watching scary movies or visiting haunted attractions. The researcher recruited several participants and had them walk through a local haunted house attraction. Immediately after exiting the attraction, each participant completed a survey about their experience. Based on the survey responses, the researcher claims that feeling frightened in controlled situations can boost a person's mood and confidence.

Which quotation from a participant would best illustrate the researcher's claim?

- A) My friends kept laughing as we were walking through the haunted house.
- B) The haunted house was scary at first, but I knew everyone was just acting, so I felt less scared after a few minutes.
- C) The sense of relief I felt at the end of the haunted house was similar to the feelings I have when I finish a scary movie.
- D) After I came out of the haunted house, I felt very accomplished and less stressed.

Answer Key	
1	D
2	A
3	D
4	A
5	D
6	B
7	A
8	A
9	D
10	D
11	A
12	B
13	B
14	D

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