

Praxis 5733 Core Academic Math Answers

Section: 5752 Core Academic Skills for Educators • Total Questions: 10 • Format: Verified Q&A

1. Each dot in the figure above represents one of the 21 student drivers who were given a practice test. If the students made from 2 to 8 errors each, what was the total number of errors made by the 21 student drivers?

- (A) 86
- (B) 98
- (C) 101
- (D) 104

2. The passage mentions which of the following as a consequence of isolating a 10-hectare tract of rain forest?

Preserving tropical rain forests is complex. Important economic plans in Brazil called for clearing forests in order to use the land for large cattle ranches. Yet the Brazilian government wanted to preserve as much land as necessary to sustain plant and animal species. In 1976 a study was developed to determine how big a tract of rain forest must be to maintain its biological integrity. For the study, biologists cut down Brazilian rain forest to isolate tracts of various sizes: five of 1 hectare, five of 10 hectares, one of 100, two of 1,000, and one of 10,000. They identified all species in each tract before and after it was isolated. They wanted to observe which species leave or die out, and in what order, so that they could discover the minimum critical size that a species requires for its survival and how species depend on one another to survive. The project's early findings were suggestive. In rain forests, a disturbance of one species can interfere with the well-being of many others. For example, ant-following birds depend entirely on the forays of army ants to flush out other insects such as grass-hoppers and crickets. In 10-hectare plots the colonies of army ants, which in their periodic movements range over as much as 30 hectares, could not survive; deprived of the flushed insects, the birds also vanished.

- (A) Ten-hectare tracts were large enough for several species of birds that continued to flourish as well as they had in much larger tracts of land.
- (B) Ten-hectare tracts were large enough for certain species of mammal to survive in, although the species' population size decreased because there was more competition among them for food.
- (C) Ten-hectare tracts were too small for certain species of birds that needed to range over much larger tracts of land to find insects as a food source.
- (D) Ten-hectare tracts were too small for certain species of mammals to survive in; after the mammals left the tract, three species of frogs that had relied on them to create wallows holding water also disappeared.
- (E) Ten-hectare tracts were too small for certain large species of mammals to survive in; after the mammals left the tract, another species of mammal flourished because its members no longer experienced predation by the larger.

3. The passage suggests which of the following as a reason for the complexity of trying to preserve tropical rain forest in Brazil?

Preserving tropical rain forests is complex. Important economic plans in Brazil called for clearing forests in order to use the land for large cattle ranches. Yet the Brazilian government wanted to preserve as much land as necessary to sustain plant and animal species. In 1976 a study was developed to determine how big a tract of rain forest must be to maintain its biological integrity. For the study, biologists cut down Brazilian rain forest to isolate tracts of various sizes: five of 1 hectare, five of 10 hectares, one of 100, two of 1,000, and one of 10,000. They identified all species in each tract before and after it was isolated. They wanted to observe which species leave or die out, and in what order, so that they could discover the minimum critical size that a species requires for its survival and how species depend on one another to survive. The project's early findings were suggestive. In rain forests, a disturbance of one species can interfere with the well-being of many others. For example, ant-following birds depend entirely on the forays of army ants to flush out other insects such as grass-hoppers and crickets. In 10-hectare plots the colonies of army ants, which in their periodic movements range over as much as 30 hectares, could not survive; deprived of the flushed insects, the birds also vanished.

- (A) The Brazilian government is unwilling to make preservation of plant and animal species an important priority.
- (B) Research on preserving plant and animal species in Brazil has reported contradictory findings about how large tracts of land must be if species are to survive in them.
- (C) Generalizations about how large tracts of land must be to support species survival do not apply to Brazilian rain forests because the forests comprise an unusually large number of species.
- (D) Preservation of plant and animal species can conflict with important economic plans made by the Brazilian government.
- (E) The Brazilian government does not have the financial resources needed to protect its plant and animal species.

4. A recipe calls for dividing 4 cups of flour into two portions in the ratio of 3 to 5. How many cups of flour should be in the larger portion?

- (A) $\frac{3}{5}$
- (B) 2
- (C) $2\frac{2}{5}$
- (D) 3

5. In a poll, 800 people were asked how favorable they felt toward a certain bill proposed in Congress. The table above shows the number of those polled that responded in each of the five ways. What is the total percent of those who felt neutral, mildly unfavorable, or very unfavorable toward the proposed bill?

- (A) 52%
- (B) 58%
- (C) 60%
- (D) 65%
- (E) 72%

6. The author mentions the 1790 law in order to

The legal relationship of Native American groups with the government of the United States, unlike that of any other minority group, is spelled out in a vast body of treaties, court actions, and legislation. Consequently, use of the legal system by Native American activists in recent years has been particularly effective. In 1972, for example, the Penobscot and Passamaquoddy Indians filed a court suit based on a 1790 law governing land transactions with Native American groups. The suit led to the Maine Indian Claims Settlement Act of 1980, which deeded 300,000 acres of timberland to the two groups.

- (A) give an example of legislation that has served as a basis for recent legal actions by Native American groups
 - (B) present a contrast to the type of legislation exemplified by the Maine Indian Claims Settlement Act of 1980
 - (C) demonstrate that the relationship of the Penobscot and Passamaquoddy Indians with the United States government is unique
 - (D) indicate that use of the legal system by Native American groups is not a new phenomenon
 - (E) prove that the Maine Indian Claims Settlement Act of 1980 violated previous legislation regarding the relationship of Native American groups with the United States government
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7. Which statement about the interaction of scientists and journalists can be inferred from the passage?

Science reporter Sharon Dunwoody argues that since scientists have nothing to gain from interaction with journalists and journalists depend on scientists for information, a symbiotic relationship between the two is unlikely to emerge. However, if one looks at scientists not only as researchers, but also as managers who have to secure the resources (money, public acceptance) they depend on and as advocates of industrial, governmental, or environmental interests, one might conclude that even scientists are increasingly dependent on publicity.

- (A) Journalists depend on scientists for more than information.
 - (B) A symbiotic relationship between scientists and journalists may yet emerge.
 - (C) The public's demand for scientific journalism is steadily increasing.
 - (D) Scientists' roles as managers and advocates have displaced their roles as researchers.
 - (E) Public funding for scientific research is not as dependent on publicity as journalists often claim.
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8. In the context in which it appears, 'a capacity' (line 11) most nearly means

If the artifacts discovered in the 1950s on the island of Flores in Indonesia are almost one million years old, as has been suggested, then we must ascribe greater capacities to their makers than most archaeologists are willing to do. This is not because the artifacts themselves possess any precocious level of craftsmanship, but because to get to Flores from Java would have required voyagers to cross 20-kilometer stretches of water. To make such a journey, early humans would have had to construct some kind of water transport. This would not only mean that they had much greater technological capacities than we thought; it would also prove that language existed at that time, for no seagoing voyage is plausible without such a capacity.

- (A) a holding
- (B) a duty
- (C) a weight
- (D) an ability
- (E) an audience

9. The passage is primarily concerned with

Joseph Mallord William Turner (1775-1851) was a successful painter in his own day. After his death, his reputation grew even greater, but many of his paintings remained unhoused. In his will, Turner bequeathed his work to his homeland, Great Britain. The will demanded that the collection remain together in special rooms to be added to Britain's National Gallery. This may not appear to be an unreasonable request, but Turner's collection included 300 oil paintings, 19,000 drawings, almost 300 sketchbooks, model ships, and other odds and ends. It was not until the 1980's, when a private donor gave the British government close to \$14 million for the project, that the new rooms were finally built.

- (A) A problematic historical situation is explained and its resolution is described.
- (B) A historical figure is introduced and the success of his work is evaluated.
- (C) A historical figure is described and his influence on painting is discussed.
- (D) An event that occurred in the mid-nineteenth century is contrasted with one that occurred in the 1980's.
- (E) An assertion is made and then supported by means of a historical anecdote.

10. Last week a bookstore ordered a total of 92 books. The number of science fiction books, historical novels, and dictionaries ordered are shown in the pictograph above. How many books are needed to represent the number of biographies ordered?

- (A) 6
- (B) 7
- (C) 17
- (D) 23
- (E) 75