

26. Which of the following best describes the passage as a whole?
- (A) An analysis of rival viewpoints among mathematicians
  - (B) An exploration of the role of computers in solving mathematical theorems
  - (C) A reflection on certain key features of mathematical proofs
  - (D) An explanation of required steps for mathematical proofs
  - (E) A treatise on the necessity of an aesthetic element in mathematics texts
27. The author includes a reference to Bill Clinton in lines 8-10 primarily to
- (A) provide an example of how a syllogism works
  - (B) provide an example of a logical fallacy
  - (C) provide a political illustration for a mathematic problem
  - (D) engage in a sardonic digression
  - (E) develop an analogy to illustrate the difference between politics and math
28. For the mathematicians cited in lines 10-21, a proof would lack beauty if it were
- (A) useful in everyday life
  - (B) free of nonessential steps
  - (C) clearly comprehensible
  - (D) resistant to challenge
  - (E) completely predictable
29. In paragraph one, all of the following pairs illustrate contrasts EXCEPT
- (A) “science” and “art” (line 2)
  - (B) “obvious” and “unexpected” (line 12)
  - (C) “trivial” and “beautiful” (line 13)
  - (D) “surprising” (line 14) and “straight from the Book” (line 15)
  - (E) “odd” and “surprising” (line 18)
30. Paragraph two presents which of the following?
- I. A demonstration of the inherent simplicity of a mathematical problem
  - II. A discussion of the Four Color Map Theorem
  - III. An example of the tenacity of mathematicians
- (A) II only
  - (B) I and II only
  - (C) I and III only
  - (D) II and III only
  - (E) I, II, and III
31. In context, the word “contrarians” (line 34) means those who
- (A) take an old-fashioned view
  - (B) deny the complexity of the theory of the four color map
  - (C) approach a topic from an unorthodox perspective
  - (D) dislike most mathematical procedures
  - (E) cooperate with other mathematicians
32. The phrase “mathematical Mount Everest” (line 53) refers to
- (A) “long-sought-after counterexample” (lines 43-44)
  - (B) “five-color map” (line 50)
  - (C) “Four Color Map Theorem” (line 54)
  - (D) “use of high-speed computers” (lines 58-59)
  - (E) “1,500 fundamental cases” (line 62)
33. In context, the phrase “fundamental cases” (line 62) means
- (A) basic patterns
  - (B) primary numbers
  - (C) specific reasons
  - (D) historical illustrations
  - (E) unchanging proofs

34. At the end of paragraph three, the author includes a quotation from Erdős (lines 69-73) primarily to show that Erdős
- (A) admires those who developed the theorem
  - (B) knows little about the theorem
  - (C) reserves judgment on the proof
  - (D) dislikes some aspects of the proof
  - (E) begs to differ with the results of the proof
35. In context, paragraphs two and three (lines 22-73) primarily serve to
- (A) suggest that different mathematicians have different strengths
  - (B) explain how both humans and computers rely on syllogisms
  - (C) contrast mathematical proofs with scientific investigations
  - (D) illustrate the shortcomings of a mathematical proof without beauty
  - (E) underscore Erdős' reputation as being at once humble and a perfectionist
36. Paragraphs two and three are developed primarily by
- (A) definition
  - (B) argument
  - (C) persuasion
  - (D) comparison and contrast
  - (E) narration and analysis
37. The sense of the last paragraph depends mainly on which of the following?
- (A) Analogy
  - (B) Humor
  - (C) Irony
  - (D) Paradox
  - (E) Personification
38. On the whole, the tone of the author is best described as
- (A) puzzled
  - (B) objective
  - (C) skeptical
  - (D) confrontational
  - (E) condescending
39. The author's presentation makes use of all of the following EXCEPT
- (A) direct quotation
  - (B) dictionary definition
  - (C) historical summary
  - (D) extended anecdote
  - (E) comparison with the arts