

**Section 1**  
**Verbal Reasoning**  
**25 Questions**

Question 1 is based on the following reading passage.

Centuries ago, the Maya of Central America produced elaborate, deeply cut carvings in stone. The carvings would have required a cutting tool of hard stone or metal. Iron-ore deposits exist throughout Central America, but apparently the Maya never developed the technology to use them and the metals the Maya are known to have used, copper and gold, would not have been hard enough. Therefore, the Maya must have used stone tools to make these carvings.

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1. Select and indicate the best answer from among the five answer choices:

Which of the following, if true, most seriously weakens the argument?

- (A) In various parts of the world, civilizations that could not make iron from ore fashioned tools out of fragments of iron from meteorites.
- (B) All the metallic Mayan artifacts that have been found by archaeologists are made of metals that are too soft for carving stone.
- (C) The stone out of which these carvings were made is harder than the stone used by other Central American peoples.
- (D) The technique that the Maya used to smelt gold and some other metals could not have been easily applied to the task of extracting iron from iron ore.
- (E) Archaeologists disagree about how certain stone tools that have been found among Mayan ruins were used.

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Questions 2 and 3 are based on the following reading passage.  
(A word is boldfaced and underlined for reference in answering question 3.)

In early-twentieth-century England, it was fashionable to claim that only a completely new style of writing could **address** a world undergoing unprecedented transformation—just as one literary  
*Line* critic recently claimed that only the new “aesthetic of exploratory  
5 excess” can **address** a world undergoing . . . well, you know. Yet in early-twentieth-century England, T. S. Eliot, a man fascinated by the “presence” of the past, wrote the most innovative poetry of his time. The lesson for today’s literary community seems obvious:  
10 a reorientation toward tradition would benefit writers no less than readers. But if our writers and critics indeed respect the novel’s rich tradition (as they claim to), then why do they disdain the urge to tell an exciting story?

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2. Select and indicate the best answer from among the five answer choices:

The author of the passage suggests that present-day readers would particularly benefit from which of the following changes on the part of present-day writers and critics?

- Ⓐ An increased focus on the importance of engaging the audience in a narrative
  - Ⓑ Modernization of the traditional novelistic elements already familiar to readers
  - Ⓒ Embracing aspects of fiction that are generally peripheral to the interest of readers
  - Ⓓ A greater recognition of how the tradition of the novel has changed over time
  - Ⓔ A better understanding of how certain poets such as Eliot have influenced fiction of the present time
3. Select and indicate the best answer from among the five answer choices:

The word “address” appears underlined and in boldface twice in the first sentence of the passage (lines 2-5). In the context of the passage as a whole, “address” is closest in meaning to

- Ⓐ reveal
- Ⓑ belie
- Ⓒ speak to
- Ⓓ direct attention toward
- Ⓔ attempt to remediate

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Question 4 is based on the following reading passage.

Electric washing machines, first introduced in the United States in 1925, significantly reduced the amount of time spent washing a given amount of clothes, yet the average amount of time households spent washing clothes increased after 1925. This increase is partially  
*Line* 5 accounted for by the fact that many urban households had previously sent their clothes to professional laundries. But the average amount of time spent washing clothes also increased for rural households with no access to professional laundries.

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4. Select and indicate the best answer from among the five answer choices:

Which of the following, if true, most helps to explain why the time spent washing clothes increased in rural areas?

- (A) People with access to an electric washing machine typically wore their clothes many fewer times before washing them than did people without access to electric washing machines.
- (B) Households that had sent their clothes to professional laundries before 1925 were more likely than other households to purchase an electric washing machine when they became available.
- (C) People living in urban households that had previously sent their clothes to professional laundries typically owned more clothes than did people living in rural households.
- (D) The earliest electric washing machines required the user to spend much more time beside the machine than do modern electric washing machines.
- (E) In the 1920s and 1930s the proportion of rural households with electricity was smaller than the proportion of urban households with electricity.

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Directions for questions 5 through 7:

**Each of the following questions includes a short text with a blank, indicating that something has been omitted. Select the entry that best completes the text.**

5. In the 1950s, the country's inhabitants were \_\_\_\_\_: most of them knew very little about foreign countries.

- ☐ (A) partisan
- ☐ (B) erudite
- ☐ (C) insular
- ☐ (D) cosmopolitan
- ☐ (E) imperturbable

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6. Since she believed him to be both candid and trustworthy, she refused to consider the possibility that his statement had been \_\_\_\_\_.
- Ⓐ irrelevant
  - Ⓑ facetious
  - Ⓒ mistaken
  - Ⓓ critical
  - Ⓔ insincere
7. It is his dubious distinction to have proved what nobody would think of denying, that Romero at the age of sixty-four writes with all the characteristics of \_\_\_\_\_.
- Ⓐ maturity
  - Ⓑ fiction
  - Ⓒ inventiveness
  - Ⓓ art
  - Ⓔ brilliance

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Questions 8 through 11 are based on the following reading passage.

In the 1970s, two debates engaged many scholars of early United States history. One focused on the status of women, primarily White women. Turning on the so-called golden age theory, which posited that during the eighteenth-century colonial  
*Line* era, American women enjoyed a brief period of high status relative  
5 to their English contemporaries and to nineteenth-century American women, this debate pitted scholars who believed women's lives deteriorated after 1800 against those who thought women's lives had been no better before 1800. At issue were the causes of  
10 women's subordination: were these causes already in place when the English first settled North America or did they emerge with the rise of nineteenth-century industrial capitalism? The second debate, the so-called origins debate, concerned the emergence of racial slavery in the southern colonies: was slavery the inevitable result  
15 of the deep-rooted racial prejudice of early British colonists or did racial prejudice arise only after these planters instituted slave labor?

Although these debates are parallel in some respects, key differences distinguished them. Whereas the debate over women's status revolved around implicit comparisons of colonial women to  
20 their counterparts in the antebellum period (1800-1860), thus inviting comment from scholars of both historical periods, the origins debate was primarily confined to a discussion about slavery in colonial America. Second, in contrast to the newness of the debate over women's status and its continued currency throughout  
25 the early 1980s, the debate over race and slavery, begun in the 1950s, had lost some of its urgency with the publication of Morgan's American Slavery, American Freedom (1975), widely regarded as the last word on the subject.

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Each debate also assumed a different relationship to the groups  
30 whose histories it concerned. In its heyday, the origins debate  
focused mainly on White attitudes toward Africans rather than on  
Africans themselves. With few exceptions, such as Wood's Black  
Majority (1974) and Mullin's Flight and Rebellion (1972), which  
were centrally concerned with enslaved African men, most works  
35 pertaining to the origins debate focused on the White architects,  
mostly male, of racial slavery. In contrast, although women's  
historians were interested in the institutions and ideologies  
contributing to women's subordination, they were equally  
concerned with documenting women's experiences. As in the  
40 origins debate, however, early scholarship on colonial women  
defined its historical constituency narrowly, women's historians  
focusing mainly on affluent White women.

Over time, however, some initial differences between the  
approaches taken by scholars in the two fields faded. In the 1980s,  
45 historians of race and slavery in colonial America shifted their  
attention to enslaved people; interest in African American culture  
grew, thereby bringing enslaved women more prominently into  
view. Historians of early American women moved in similar  
directions during the decade and began to consider the effect of  
50 racial difference on women's experience.

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8. Select and indicate the best answer from among the five answer choices:

The passage is primarily concerned with

- (A) showing how historians who were engaged in a particular debate influenced historians engaged in another debate
- (B) explaining why two initially parallel scholarly debates diverged in the 1980s
- (C) comparing two scholarly debates and discussing their histories
- (D) contrasting the narrow focus of one scholarly debate with the somewhat broader focus of another
- (E) evaluating the relative merits of the approaches used by historians engaged in two overlapping scholarly debates

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9. Select and indicate the best answer from among the five answer choices:

It can be inferred that the author of the passage mentions American Slavery, American Freedom in the second paragraph (line 27) primarily in order to

- (A) substantiate a point about the methodology that came to be prevalent among scholars engaged in the origins debate
- (B) cite a major influence on those scholars who claimed that racial prejudice preceded the institution of slavery in colonial America
- (C) show that some scholars who were engaged in the origins debate prior to the 1980s were interested in the experiences of enslaved people
- (D) identify a reason for a certain difference in the late 1970s between the origins debate and the debate over American women's status
- (E) contrast the kind of work produced by scholars engaged in the origins debate with the kind produced by scholars engaged in the debate over American women's status

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10. Select and indicate the best answer from among the five answer choices:

The passage suggests which of the following about the women's historians mentioned in the third paragraph?

- (A) They disputed certain claims regarding the status of eighteenth-century American women relative to women in England during the same period.
- (B) Their approach to the study of women's subordination had been partly influenced by earlier studies published by some scholars engaged in the origins debate.
- (C) Their work focused on the experiences of both White and African American women.
- (D) Their approach resembled the approach taken in studies by Wood and by Mullin in that they were interested in the experiences of people subjected to a system of subordination.
- (E) To some extent, they concurred with Wood and with Mullin about the origins of racism in colonial America.

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11. Select and indicate the best answer from among the five answer choices:

According to the passage, historical studies of race and slavery in early America that were produced during the 1980s differed from studies of that subject produced prior to the 1980s in that the studies produced during the 1980s

- (A) gave more attention to the experiences of enslaved women
- (B) gave less attention to the cultures of enslaved people
- (C) were read by more scholars in other fields
- (D) were more concerned with the institutions and ideologies that perpetuated racial prejudice in postcolonial America
- (E) made direct comparisons between the subordination of White women and the subordination of African American people

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Directions for questions 12 through 17:

**Each of the following questions includes a short text with two or three blanks, each blank indicating that something has been omitted. Select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.**

12. The narratives that vanquished peoples have created of their defeat have, according to Schivelbusch, fallen into several identifiable types. In one of these, the vanquished manage to (i) \_\_\_\_\_ the victor's triumph as the result of some spurious advantage, the victors being truly inferior where it counts. Often the winners (ii) \_\_\_\_\_ this interpretation, worrying about the cultural or moral costs of their triumph and so giving some credence to the losers' story.

Blank (i)	Blank (ii)
<input type="radio"/> A construe	<input type="radio"/> D take issue with
<input type="radio"/> B anoint	<input type="radio"/> E disregard
<input type="radio"/> C acknowledge	<input type="radio"/> F collude in

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13. I've long anticipated this retrospective of the artist's work, hoping that it would make (i) \_\_\_\_\_ judgments about him possible, but greater familiarity with his paintings highlights their inherent (ii) \_\_\_\_\_ and actually makes one's assessment (iii) \_\_\_\_\_.

Blank (i)	Blank (ii)	Blank (iii)
(A) modish	(D) gloom	(G) similarly equivocal
(B) settled	(E) ambiguity	(H) less sanguine
(C) detached	(F) delicacy	(I) more cynical

14. Stories are a haunted genre; hardly (i) \_\_\_\_\_ kind of story, the ghost story is almost the paradigm of the form, and (ii) \_\_\_\_\_ was undoubtedly one effect that Poe had in mind when he wrote about how stories work.

Blank (i)	Blank (ii)
(A) a debased	(D) pessimism
(B) a normative	(E) goosebumps
(C) a meticulous	(F) curiosity

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15. Given how (i)\_\_\_\_\_ the shortcomings of the standard economic model are in its portrayal of human behavior, the failure of many economists to respond to them is astonishing. They continue to fill the journals with yet more proofs of yet more (ii)\_\_\_\_\_ theorems. Others, by contrast, accept the criticisms as a challenge, seeking to expand the basic model to embrace a wider range of things people do.

Blank (i)	Blank (ii)
<input type="radio"/> A overlooked	<input type="radio"/> D comprehensive
<input type="radio"/> B occasional	<input type="radio"/> E improbable
<input type="radio"/> C patent	<input type="radio"/> F pervasive

16. The playwright's approach is (i)\_\_\_\_\_ in that her works (ii)\_\_\_\_\_ the theatrical devices normally used to create drama on the stage.

Blank (i)	Blank (ii)
<input type="radio"/> A pedestrian	<input type="radio"/> D jettison
<input type="radio"/> B startling	<input type="radio"/> E experiment with
<input type="radio"/> C celebrated	<input type="radio"/> F distill

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17. Scientists are not the only persons who examine the world about them by the use of rational processes, although they sometimes (i) \_\_\_\_\_ this impression by extending the definition of “scientist” to include anyone who is (ii) \_\_\_\_\_ in his or her investigational practices.

Blank (i)	Blank (ii)
(A) conceal	(D) intuitive
(B) create	(E) haphazard
(C) undermine	(F) logical

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Questions 18 and 19 are based on the following reading passage.  
(A part of one sentence is shown underlined and in boldface for reference in answering question 18, and a word is shown underlined and in boldface for reference in answering question 19.)

The most plausible justification for higher taxes on automobile fuel is that fuel consumption harms the environment and thus adds to the costs of traffic congestion. But the fact that burning fuel  
*Line* creates these “negative externalities” does not imply that no tax on  
5 fuel could ever be too high. Economics is precise about the tax that should, in principle, be levied to deal with negative externalities:  
**the tax on a liter of fuel should be equal to the harm caused by using a liter of fuel.** If the tax is more than that, its costs (including the inconvenience to those who would rather have used their cars)  
10 will **exceed** its benefits (including any reduction in congestion and pollution).

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18. Select and indicate the best answer from among the five answer choices:

Which of the following best characterizes the function of the underlined and boldfaced partial sentence in lines 7-8 of the passage?

- ☐ (A) It restates a point made earlier in the passage.
  - ☐ (B) It provides the evidence on which a theory is based.
  - ☐ (C) It presents a specific application of a general principle.
  - ☐ (D) It summarizes a justification with which the author disagrees.
  - ☐ (E) It suggests that the benefits of a particular strategy have been overestimated.
19. Select and indicate the best answer from among the five answer choices:

The word “exceed” appears underlined and boldfaced in line 10 of the passage. In the context in which it appears, “exceed” most nearly means

- ☐ (A) outstrip
- ☐ (B) magnify
- ☐ (C) delimit
- ☐ (D) offset
- ☐ (E) supplant

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Questions 20 and 21 are based on the following reading passage.  
(A two-word phrase is shown underlined and in boldface for reference in answering question 21.)

Objectively, of course, the various ecosystems that sustain life on the planet proceed independently of human agency, just as they operated before the hectic ascendancy of Homo sapiens. But it is  
*Line* also true that it is difficult to think of a single such system that has  
5 not, for better or worse, been substantially modified by human culture. Nor is this simply the work of the industrial centuries. It has been happening since the days of ancient Mesopotamia. It is **coeval**  
**with** the origins of writing, and has occurred throughout our social  
10 existence. And it is this irreversibly modified world, from the polar caps to the equatorial forests, that is all the nature we have.

20. Consider **each** of the three choices separately and select **all** that apply.

It can be inferred from the passage that the author would agree with which of the following statements?

- ☐ A Over time, the impact of human culture on the natural world has been largely benign.
- ☐ B It is a mistake to think that the natural world contains many areas of pristine wilderness.
- ☐ C The only substantial effects that human agency has had on ecosystems have been inadvertent.

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21. Select and indicate the best answer from among the five answer choices:

The phrase “coeval with” appears underlined and in boldface in lines 7-8 of the passage. In the context in which it appears, “coeval with” most nearly means

- ☐ (A) influenced by
- ☐ (B) older than
- ☐ (C) coincident with
- ☐ (D) unimpeded by
- ☐ (E) similar to

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Directions for questions 22 through 25:

**Each of the following questions includes a sentence with a blank indicating that something has been omitted. Following the sentence will be a list of six words or phrases, each of which could be used to complete the sentence. Select the two answer choices that, when substituted for the blank, fit the context and produce the two sentences most nearly alike in meaning.**

22. Dreams are \_\_\_\_\_ in and of themselves, but, when combined with other data, they can tell us much about the dreamer.

- ☐ A    astonishing
- ☐ B    disordered
- ☐ C    harmless
- ☐ D    inscrutable
- ☐ E    revealing
- ☐ F    uninformative

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23. Linguistic science confirms what experienced users of ASL—American Sign Language—have always implicitly known: ASL is a grammatically \_\_\_\_\_ language, as capable of expressing a full range of syntactic relations as any natural spoken language.

- ☐ A complete
- ☐ B economical
- ☐ C redundant
- ☐ D spare
- ☐ E unique
- ☐ F unlimited

24. The macromolecule RNA is common to all living beings, and DNA, which is found in all organisms except some bacteria, is almost as \_\_\_\_\_.

- ☐ A comprehensive
- ☐ B fundamental
- ☐ C inclusive
- ☐ D universal
- ☐ E significant
- ☐ F ubiquitous

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25. Early critics of Emily Dickinson's poetry mistook for simplemindedness the surface of artlessness that in fact she constructed with such \_\_\_\_\_.

☐ A    astonishment

☐ B    craft

☐ C    cunning

☐ D    innocence

☐ E    naïveté

☐ F    vexation

**Section 2**  
**Verbal Reasoning**  
**25 Questions**

Directions for questions 1 through 5:

**Each of the following questions includes a sentence with a blank indicating that something has been omitted. Following the sentence will be a list of six words or phrases, each of which could be used to complete the sentence. Select the two answer choices that, when substituted for the blank, fit the context and produce the two sentences most nearly alike in meaning.**

1. In the long run, high-technology communications cannot \_\_\_\_\_ more traditional face-to-face family togetherness, in Ms. Aspinall's view.

- ☐ A ameliorate
- ☐ B compromise
- ☐ C supersede
- ☐ D approximate
- ☐ E enervate
- ☐ F supplant

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2. Even in this business, where \_\_\_\_\_ is part of everyday life, a talent for lying is not something usually found on one's resume.

- ☐ A aspiration
- ☐ B mendacity
- ☐ C prevarication
- ☐ D insensitivity
- ☐ E baseness
- ☐ F avarice

3. A restaurant's menu is generally reflected in its decor; however, despite this restaurant's \_\_\_\_\_ appearance it is pedestrian in the menu it offers.

- ☐ A elegant
- ☐ B tawdry
- ☐ C modern
- ☐ D traditional
- ☐ E conventional
- ☐ F chic

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4. International financial issues are typically \_\_\_\_\_ by the United States media because they are too technical to make snappy headlines and too inaccessible to people who lack a background in economics.

- ☐ A neglected
- ☐ B slighted
- ☐ C overrated
- ☐ D hidden
- ☐ E criticized
- ☐ F repudiated

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5. While in many ways their personalities could not have been more different—she was ebullient where he was glum, relaxed where he was awkward, garrulous where he was \_\_\_\_\_— they were surprisingly well suited.

- ☐ A solicitous
- ☐ B munificent
- ☐ C irresolute
- ☐ D laconic
- ☐ E fastidious
- ☐ F taciturn

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Questions 6 through 8 are based on the following reading passage.

Music critics have consistently defined James P. Johnson as a great early jazz pianist, originator of the 1920s Harlem “stride” style, and an important blues and jazz composer. In addition,  
*Line* however, Johnson was an innovator in classical music, composing  
5 symphonic music that incorporated American, and especially African American, traditions.

Such a blend of musical elements was not entirely new: by 1924 both Milhaud and Gershwin had composed classical works that incorporated elements of jazz. Johnson, a serious musician  
10 more experienced than most classical composers with jazz, blues, spirituals, and popular music, was particularly suited to expand Milhaud’s and Gershwin’s experiments. In 1927 he completed his first large-scale work, the blues- and jazz-inspired Yamekraw, which included borrowings from spirituals and Johnson’s own  
15 popular songs. Yamekraw, premiered successfully in Carnegie Hall, was a major achievement for Johnson, becoming his most frequently performed extended work. It demonstrated vividly the possibility of assimilating contemporary popular music into the symphonic tradition.

6. Select and indicate the best answer from among the five answer choices:

The passage states that Johnson composed all of the following EXCEPT

- (A) jazz works
- (B) popular songs
- (C) symphonic music
- (D) spirituals
- (E) blues pieces

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7. Consider **each** of the three choices separately and select **all** that apply.

The author suggests which of the following about most classical composers of the early 1920s?

- ☐ A They were strongly influenced by the musical experiments of Milhaud and Gershwin.
- ☐ B They had little working familiarity with such forms of American music as jazz, blues, and popular songs.
- ☐ C They made few attempts to introduce innovations into the classical symphonic tradition.

8. Select and indicate the best answer from among the five answer choices:

The author suggests that most critics have

- ☐ A underrated the popularity of Yamekraw
- ☐ B undervalued Johnson's musical abilities
- ☐ C had little interest in Johnson's influence on jazz
- ☐ D had little regard for classical works that incorporate popular music
- ☐ E neglected Johnson's contribution to classical symphonic music

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Questions 9 and 10 are based on the following reading passage.  
(A word is boldfaced and underlined for reference in answering question 10.)

Scholarship on political newspapers and their editors is dominated by the view that as the United States grew, the increasing influence of the press led, ultimately, to the neutral reporting from which we benefit today. Pasley considers this view oversimplified, because neutrality was not a goal of early national newspaper editing, even when editors **disingenuously** stated that they aimed to tell all sides of a story. Rather, the intensely partisan ideologies represented in newspapers of the early republic led to a clear demarcation between traditional and republican values. The editors responsible for the papers' content—especially those with republican agendas—began to see themselves as central figures in the development of political consciousness in the United States.

9. Consider **each** of the three choices separately and select **all** that apply.

The passage suggests that Pasley would agree with which of the following statements about the political role of newspapers?

- ☐ A Newspapers today are in many cases much less neutral in their political reporting than is commonly held by scholars.
- ☐ B Newspapers in the early United States normally declared quite openly their refusal to tell all sides of most political stories.
- ☐ C The editorial policies of some early United States newspapers became a counterweight to proponents of traditional values.

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10. Select and indicate the best answer from among the five answer choices:

The word “disingenuously” appears underlined and in boldface in line 6 of the passage. In the context in which it appears, “disingenuously” most nearly means

- ☐ (A) insincerely
- ☐ (B) guilelessly
- ☐ (C) obliquely
- ☐ (D) resolutely
- ☐ (E) pertinaciously

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Directions for questions 11 and 12:

**Each of the following questions includes a short text with two or three blanks, each blank indicating that something has been omitted. Select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.**

11. The (i)\_\_\_\_\_ nature of classical tragedy in Athens belies the modern image of tragedy: in the modern view tragedy is austere and stripped down, its representations of ideological and emotional conflicts so superbly compressed that there's nothing (ii)\_\_\_\_\_ for time to erode.

Blank (i)	Blank (ii)
(A) unadorned	(D) inalienable
(B) harmonious	(E) exigent
(C) multifaceted	(F) extraneous

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12. Murray, whose show of recent paintings and drawings is her best in many years, has been eminent hereabouts for a quarter century, although often regarded with (i)\_\_\_\_\_, but the most (ii)\_\_\_\_\_ of these paintings (iii)\_\_\_\_\_ all doubts.

Blank (i)	Blank (ii)	Blank (iii)
(A) partiality	(D) problematic	(G) exculpate
(B) credulity	(E) successful	(H) assuage
(C) ambivalence	(F) disparaged	(I) whet

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Directions for questions 13 and 14:

**Each of the following questions includes a short text with a blank, indicating that something has been omitted. Select the entry that best completes the text.**

13. Far from viewing Jefferson as a skeptical but enlightened intellectual, historians of the 1960s portrayed him as \_\_\_\_\_ thinker, eager to fill the young with his political orthodoxy while censoring ideas he did not like.
- ☐ (A) an adventurous
  - ☐ (B) a doctrinaire
  - ☐ (C) an eclectic
  - ☐ (D) a judicious
  - ☐ (E) a cynical

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14. Dramatic literature often \_\_\_\_\_ the history of a culture in that it takes as its subject matter the important events that have shaped and guided the culture.

- ☐ (A) confounds
- ☐ (B) repudiates
- ☐ (C) recapitulates
- ☐ (D) anticipates
- ☐ (E) polarizes

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Questions 15 through 17 are based on the following reading passage.  
(A sentence is boldfaced and underlined for reference in answering question 16.)

In Raisin in the Sun, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization. Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work. **Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led some critics to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism.** Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation. But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than Du Bois's famous, well-considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

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15. Select and indicate the best answer from among the five answer choices:

The author's primary purpose in the passage is to

- (A) explain some critics' refusal to consider Raisin in the Sun a deliberately ironic play
  - (B) suggest that ironic nuances ally Raisin in the Sun with Du Bois's and Fanon's writings
  - (C) analyze the fundamental dramatic conflicts in Raisin in the Sun
  - (D) emphasize the inclusion of contradictory elements in Raisin in the Sun
  - (E) affirm the thematic coherence underlying Raisin in the Sun
16. Select and indicate the best answer from among the five answer choices:

The author of the passage would probably consider which of the following judgments to be most similar to the reasoning of the critics described in the underlined and boldfaced sentence (lines 7-11) ?

- (A) The world is certainly flat; therefore, the person proposing to sail around it is unquestionably foolhardy.
- (B) Radioactivity cannot be directly perceived; therefore, a scientist could not possibly control it in a laboratory.
- (C) The painter of this picture could not intend it to be funny; therefore, its humor must result from a lack of skill.
- (D) Traditional social mores are beneficial to culture; therefore, anyone who deviates from them acts destructively.
- (E) Filmmakers who produce documentaries deal exclusively with facts; therefore, a filmmaker who reinterprets particular events is misleading us.

**GO ON TO THE NEXT PAGE.**

17. The five sentences in the passage are repeated below, in their original order, with each one assigned a letter. Select and indicate a sentence in the passage in which the author provides examples that reinforce an argument against a critical response cited earlier in the passage.
- (A) In Raisin in the Sun, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization.
  - (B) Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work.
  - (C) Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led some critics to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism.
  - (D) Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation.
  - (E) But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than Du Bois's famous, well-considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

**GO ON TO THE NEXT PAGE.**



Question 18 is based on the following text.

As an example of the devastation wrought on music publishers by the photocopier, one executive noted that for a recent choral festival with 1,200 singers, the festival's organizing committee purchased  
*Line* only 12 copies of the music published by her company that was  
5 performed as part of the festival.

18. Select and indicate the best answer from among the five answer choices:

Which of the following, if true, most seriously weakens the support the example lends to the executive's contention that music publishers have been devastated by the photocopier?

- (A) Only a third of the 1,200 singers were involved in performing the music published by the executive's company.
- (B) Half of the singers at the festival had already heard the music they were to perform before they began to practice for the festival.
- (C) Because of shortages in funding, the organizing committee of the choral festival required singers to purchase their own copies of the music performed at the festival.
- (D) Each copy of music that was performed at the festival was shared by two singers.
- (E) As a result of publicity generated by its performance at the festival, the type of music performed at the festival became more widely known.

**GO ON TO THE NEXT PAGE.**

Directions for questions 19 through 21:

**Each of the following questions includes a short text with two or three blanks, each blank indicating that something has been omitted. Select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.**

19. New technologies often begin by (i)\_\_\_\_\_ what has gone before, and they change the world later. Think how long it took power-using companies to recognize that with electricity they did not need to cluster their machinery around the power source, as in the days of steam. Instead, power could be (ii)\_\_\_\_\_ their processes. In that sense, many of today's computer networks are still in the steam age. Their full potential remains unrealized.

Blank (i)	Blank (ii)
(A) uprooting	(D) transmitted to
(B) dismissing	(E) consolidated around
(C) mimicking	(F) incorporated into

**GO ON TO THE NEXT PAGE.**

20. There has been much hand-wringing about how unprepared American students are for college. Graff reverses this perspective, suggesting that colleges are unprepared for students. In his analysis, the university culture is largely (i)\_\_\_\_\_ entering students because academic culture fails to make connections to the kinds of arguments and cultural references that students grasp. Understandably, many students view academic life as (ii)\_\_\_\_\_ ritual.

Blank (i)	Blank (ii)
(A) primed for	(D) an arcane
(B) opaque to	(E) a laudable
(C) essential for	(F) a painstaking

**GO ON TO THE NEXT PAGE.**

21. Of course anyone who has ever perused an unmodernized text of Captain Clark's journals knows that the Captain was one of the most (i)\_\_\_\_\_ spellers ever to write in English, but despite this (ii)\_\_\_\_\_ orthographical rules, Clark is never unclear.

Blank (i)

Blank (ii)

<input type="radio"/> A indefatigable	<input type="radio"/> D disregard for
<input type="radio"/> B fastidious	<input type="radio"/> E partiality toward
<input type="radio"/> C defiant	<input type="radio"/> F unpretentiousness about

**GO ON TO THE NEXT PAGE.**

Question 22 is based on the following reading passage.

For the past two years at FasCorp, there has been a policy to advertise any job opening to current employees and to give no job to an applicant from outside the company if a FasCorp employee  
*Line* applies who is qualified for the job. This policy has been strictly  
5 followed, yet even though numerous employees of FasCorp have been qualified for any given entry-level position, some entry-level jobs have been filled with people from outside the company.

22. Select and indicate the best answer from among the five answer choices:

If the information provided is true, which of the following must on the basis of it also be true about FasCorp during the past two years?

- (A) There have been some open jobs for which no qualified FasCorp employee applied.
- (B) Some entry-level job openings have not been advertised to FasCorp employees.
- (C) The total number of employees has increased.
- (D) FasCorp has hired some people for jobs for which they were not qualified.
- (E) All the job openings have been for entry-level jobs.

**GO ON TO THE NEXT PAGE.**

Questions 23 through 25 are based on the following reading passage.

A tall tree can transport a hundred gallons of water a day from its roots deep underground to the treetop. Is this movement propelled by pulling the water from above or pushing it from below? The pull  
*Line* mechanism has long been favored by most scientists. First proposed  
5 in the late 1800s, the theory relies on a property of water not commonly associated with fluids: its tensile strength. Instead of making a clean break, water evaporating from treetops tugs on the remaining water molecules, with that tug extending from molecule to molecule all the way down to the roots. The tree itself does not  
10 actually push or pull; all the energy for lifting water comes from the sun's evaporative power.

23. Select and indicate the best answer from among the five answer choices:

The passage is primarily concerned with

- (A) refuting a hypothesis advanced by scientists
- (B) discussing the importance of a phenomenon
- (C) presenting a possible explanation of a phenomenon
- (D) contrasting two schools of thought
- (E) discussing the origins of a theory

**GO ON TO THE NEXT PAGE.**

24. Consider **each** of the three choices separately and select **all** that apply.

Which of the following statements is supported by the passage?

- ☐ A The pull theory is not universally accepted by scientists.
  - ☐ B The pull theory depends on one of water's physical properties.
  - ☐ C The pull theory originated earlier than did the push theory.
25. Select and indicate the best answer from among the five answer choices:

The passage provides information on each of the following  
EXCEPT

- ☐ A when the pull theory originated
- ☐ B the amount of water a tall tree can transport
- ☐ C the significance of water's tensile strength in the pull theory
- ☐ D the role of the sun in the pull theory
- ☐ E the mechanism underlying water's tensile strength

**Section 3**  
**Quantitative Reasoning**  
**25 Questions**

**Directions:** For each question, indicate the best answer using the directions given.

**Notes:** All numbers used are real numbers.

All figures are assumed to lie in a plane unless otherwise indicated.

Geometric figures, such as circles, triangles, and quadrilaterals, **are not necessarily** drawn to scale. That is, you should **not** assume that quantities such as lengths and angle measures are as they appear in a figure. You should assume, however, that lines shown as straight are actually straight, points on a line are in the order shown, and more generally, all geometric objects are in the relative positions shown. For questions with geometric figures, you should base your answers on geometric reasoning, not on estimating or comparing quantities from how they are drawn in the geometric figure.

Coordinate systems, such as  $xy$ -planes and number lines, **are** drawn to scale; therefore, you can read, estimate, or compare quantities in such figures from how they are drawn in the coordinate system.

Graphical data presentations, such as bar graphs, circle graphs, and line graphs, **are** drawn to scale; therefore, you can read, estimate, or compare data values from how they are drawn in the graphical data presentation.

**GO ON TO THE NEXT PAGE.**



For each of Questions 1–9, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the following four answer choices. A symbol that appears more than once in a question has the same meaning throughout the question.

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

Quantity A

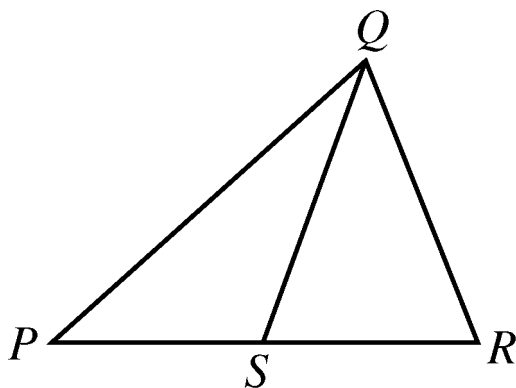
Quantity B

**Example 1:**      $(2)(6)$

$2 + 6$

The correct answer choice for Example 1 is (A).  $(2)(6)$ , or 12, is greater than  $2 + 6$ , or 8.

---



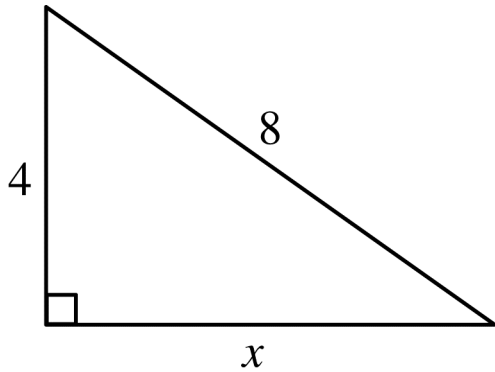
**Example 2:**      $PS$

$SR$

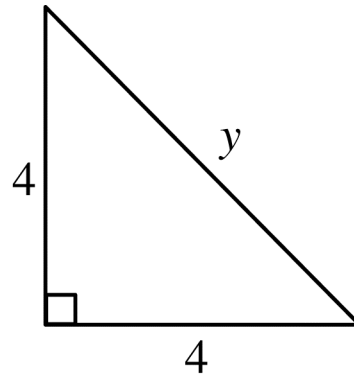
The correct answer choice is (D). The relationship between  $PS$  and  $SR$  cannot be determined from the information given since equal measures cannot be assumed, even though  $PS$  and  $SR$  appear to be equal in the figure.

---

**GO ON TO THE NEXT PAGE.**



Quantity A



Quantity B

1.  $x$   $y$

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

$$(x - 2y)(x + 2y) = 4$$

Quantity A

Quantity B

2.  $x^2 - 4y^2$  8

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

**GO ON TO THE NEXT PAGE.**

A certain recipe requires  $\frac{3}{2}$  cups of sugar and makes 2 dozen cookies.  
(1 dozen = 12)

Quantity A

Quantity B

3. The amount of sugar  
required for the same  
recipe to make 30 cookies

2 cups

- ☐ (A) Quantity A is greater.
  - ☐ (B) Quantity B is greater.
  - ☐ (C) The two quantities are equal.
  - ☐ (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

A power station is located on the boundary of a square region that measures 10 miles on each side. Three substations are located inside the square region.

Quantity A

Quantity B

4.      The sum of the distances from the power station to each of the substations      30 miles

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

$$6 < x < 7$$
$$y = 8$$

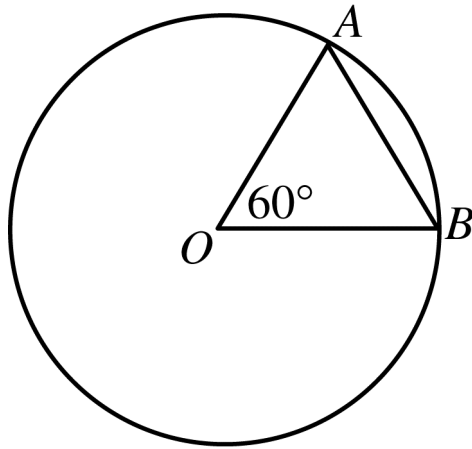
Quantity A

Quantity B

5.       $\frac{x}{y}$       0.85

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



$O$  is the center of the circle and the perimeter of  $\triangle AOB$  is 6.

Quantity A

Quantity B

6. The circumference of the circle

12

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

Quantity A

Quantity B

7. The standard deviation of a set of 5 different integers, each of which is between 0 and 10

The standard deviation of a set of 5 different integers, each of which is between 10 and 20

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

$$x > 1$$

Quantity A

Quantity B

8.  $x(x^2)^4$

$$(x^3)^3$$

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

$$x \neq 0$$

Quantity A

Quantity B

9.

$$|x| + |-2|$$

$$|x - 2|$$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

**Questions 10–25 have several different formats, including both selecting answers from a list of answer choices and numeric entry. With each question, answer format instructions will be given.**

### **Numeric-Entry Questions**

These questions require a number to be entered by circling entries in a grid. If you are not filling in your own answers, your scribe should be familiar with these instructions.

1. Your answer may be an integer, a decimal, or a fraction, and it may be negative.
2. Equivalent forms of the correct answer, such as 2.5 and 2.50, are all correct. Although fractions do not need to be reduced to lowest terms, they may need to be reduced to fit in the grid.
3. Enter the exact answer unless the question asks you to round your answer.
4. If a question asks for a fraction, the grid will have a built-in division slash (/). Otherwise, the grid will have a decimal point.
5. Start your answer in any column, space permitting. Circle no more than one entry in any column of the grid. Columns not needed should be left blank.
6. Write your answer in the boxes at the top of the grid and circle the corresponding entries. **You will receive credit only if your grid entries are clearly marked, regardless of the number written in the boxes at the top.**

**GO ON TO THE NEXT PAGE.**



This question has five answer choices. Select the best **one** of the answer choices given.

$$7x + 3y = 12$$

$$3x + 7y = 6$$

10. If  $x$  and  $y$  satisfy the system of equations shown, what is the value of  $x - y$  ?

(A)  $\frac{2}{3}$

(B)  $\frac{3}{2}$

(C) 1

(D) 4

(E) 6

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all five of the answer choices.

11. In triangle  $ABC$ , the measure of angle  $A$  is  $25^\circ$  and the measure of angle  $B$  is greater than  $90^\circ$ . Which of the following could be the measure of angle  $C$  ?

Indicate **all** possible values.

- ☐ A  $12^\circ$
  - ☐ B  $15^\circ$
  - ☐ C  $45^\circ$
  - ☐ D  $50^\circ$
  - ☐ E  $70^\circ$
- 

This question has five answer choices. Select the best **one** of the answer choices given.

12. What is the least integer  $n$  such that  $\frac{1}{2^n} < 0.001$  ?

- ☐ A 10
  - ☐ B 11
  - ☐ C 500
  - ☐ D 501
  - ☐ E There is no such least value.
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

13. In the sunshine, an upright pole 12 feet tall is casting a shadow 8 feet long. At the same time, a nearby upright pole is casting a shadow 10 feet long. If the lengths of the shadows are proportional to the heights of the poles, what is the height, in feet, of the taller pole?

- (A) 10
  - (B) 12
  - (C) 14
  - (D) 15
  - (E) 18
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

14. If  $a$  is the smallest prime number greater than 21 and  $b$  is the largest prime number less than 16, then  $ab =$

- (A) 299
  - (B) 323
  - (C) 330
  - (D) 345
  - (E) 351
- 

**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number by circling entries in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

15. The total amount of Judy's water bill for the last quarter of the year was \$40.50. The bill consisted of a fixed charge of \$13.50 plus a charge of \$0.0075 per gallon for the water used in the quarter. For how many gallons of water was Judy charged for the quarter?

								gallons
—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

List *R*: 28, 23, 30, 25, 27

List *S*: 22, 19, 15, 17, 20

16. The median of the numbers in list *R* is how much greater than the median of the numbers in list *S* ?

- (A) 8
  - (B) 10
  - (C) 12
  - (D) 13
  - (E) 15
- 

**GO ON TO THE NEXT PAGE.**

Questions 17-20 are based on the data presented on the facing page.  
In order to fit on the page, the data presentation has been turned  
90 degrees.

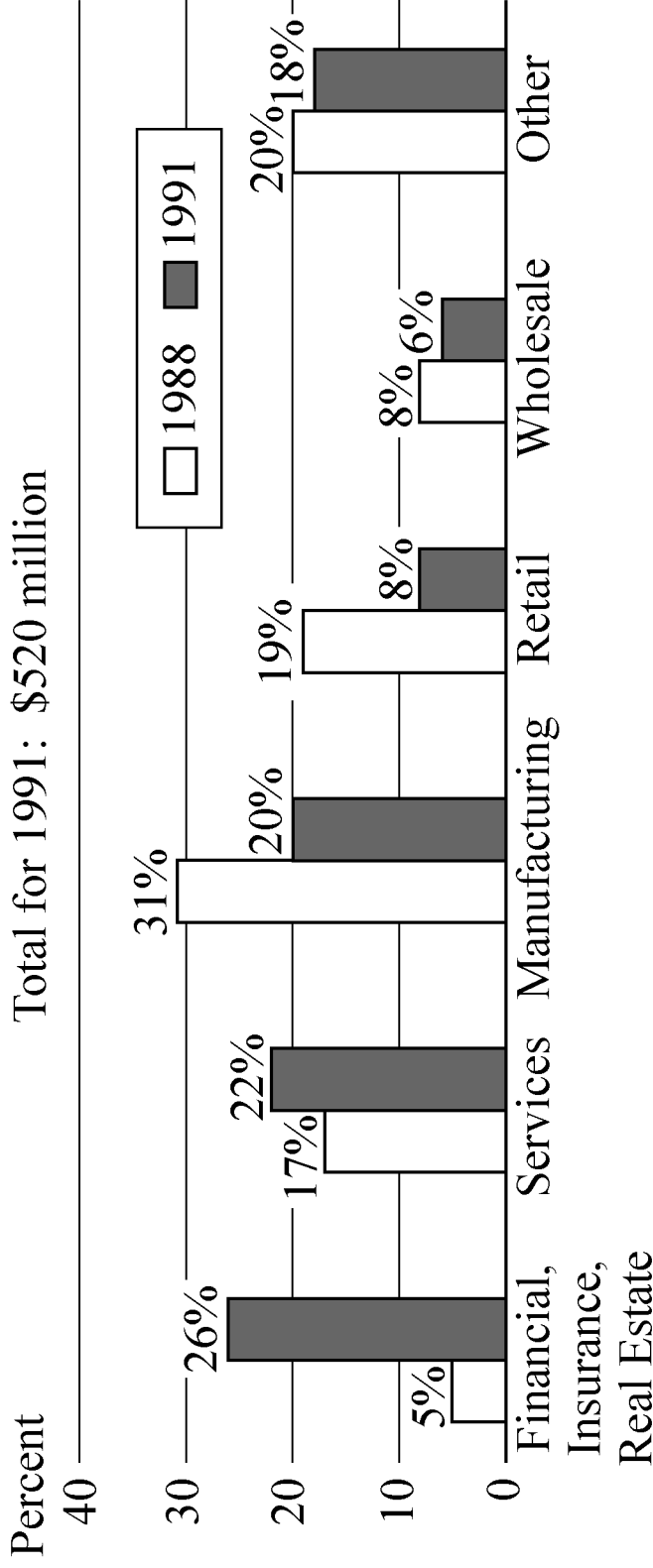
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**GO ON TO THE NEXT PAGE.**

# Corporate Support for the Arts by Sector in 1988 and 1991

Total for 1988: \$630 million

Total for 1991: \$520 million



**GO ON TO THE NEXT PAGE.**



This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

17. The two corporate sectors that increased their support for the arts from 1988 to 1991 made a total contribution in 1991 of approximately how many million dollars?

Give your answer to the **nearest 10 million dollars**.

								million dollars
—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best one of the answer choices given.

18. How many of the six corporate sectors listed each contributed more than \$60 million to the arts in both 1988 and 1991 ?

- ☐ A One
  - ☐ B Two
  - ☐ C Three
  - ☐ D Four
  - ☐ E Five
- 

This question has five answer choices. Select the best one of the answer choices given.

19. From 1988 to 1991, which corporate sector decreased its support for the arts by the greatest dollar amount?

- ☐ A Services
  - ☐ B Manufacturing
  - ☐ C Retail
  - ☐ D Wholesale
  - ☐ E Other
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

20. Of the retail sector's 1991 contribution to the arts,  $\frac{1}{4}$  went to symphony orchestras and  $\frac{1}{2}$  of the remainder went to public television. Approximately how many million dollars more did the retail sector contribute to public television that year than to symphony orchestras?

- (A) 5.2
  - (B) 6.3
  - (C) 10.4
  - (D) 13.0
  - (E) 19.5
- 

**GO ON TO THE NEXT PAGE.**

This question has three answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all three of the answer choices.

21. The total number of recording titles distributed by music distributors  $L$  and  $M$  is 9,300. The number of recording titles distributed by  $L$  is 7,100, and the number of recording titles distributed by  $M$  is 5,200. Which of the following statements must be true?

Indicate **all** such statements.

- ☐ A More than half of the titles distributed by  $L$  are also distributed by  $M$ .
- ☐ B More than half of the titles distributed by  $M$  are also distributed by  $L$ .
- ☐ C No titles are distributed by both  $L$  and  $M$ .
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

22. If  $c$  and  $d$  are positive integers and  $m$  is the greatest common factor of  $c$  and  $d$ , then  $m$  must be the greatest common factor of  $c$  and which of the following integers?

(A)  $c + d$

(B)  $2 + d$

(C)  $cd$

(D)  $2d$

(E)  $d^2$

---

**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number by circling entries in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

23. The average (arithmetic mean) of the 11 numbers in a list is 14. If the average of 9 of the numbers in the list is 9, what is the average of the other 2 numbers?

—	.	.	.	.	.	.	.
	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

24. Of the 750 participants in a professional meeting, 450 are females and  $\frac{1}{2}$  of the female and  $\frac{1}{4}$  of the male participants are less than thirty years old. If one of the participants will be randomly selected to receive a book prize, what is the probability that the person selected will be less than thirty years old?

(A)  $\frac{1}{8}$

(B)  $\frac{1}{3}$

(C)  $\frac{3}{8}$

(D)  $\frac{2}{5}$

(E)  $\frac{3}{4}$

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best one of the answer choices given.

25. In the  $xy$ -plane, what is the slope of the line whose equation is  $3x - 2y = 8$  ?

(A)  $-4$

(B)  $-\frac{8}{3}$

(C)  $\frac{2}{3}$

(D)  $\frac{3}{2}$

(E)  $2$

---



**Section 4**  
**Quantitative Reasoning**  
**25 Questions**

**Directions:** For each question, indicate the best answer using the directions given.

**Notes:** All numbers used are real numbers.

All figures are assumed to lie in a plane unless otherwise indicated.

Geometric figures, such as circles, triangles, and quadrilaterals, **are not necessarily** drawn to scale. That is, you should **not** assume that quantities such as lengths and angle measures are as they appear in a figure. You should assume, however, that lines shown as straight are actually straight, points on a line are in the order shown, and more generally, all geometric objects are in the relative positions shown. For questions with geometric figures, you should base your answers on geometric reasoning, not on estimating or comparing quantities from how they are drawn in the geometric figure.

Coordinate systems, such as  $xy$ -planes and number lines **are** drawn to scale; therefore, you can read, estimate, or compare quantities in such figures from how they are drawn in the coordinate system.

Graphical data presentations, such as bar graphs, circle graphs, and line graphs, **are** drawn to scale; therefore, you can read, estimate, or compare data values from how they are drawn in the graphical data presentation.

**GO ON TO THE NEXT PAGE.**

For each of Questions 1–9, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the following four answer choices. A symbol that appears more than once in a question has the same meaning throughout the question.

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

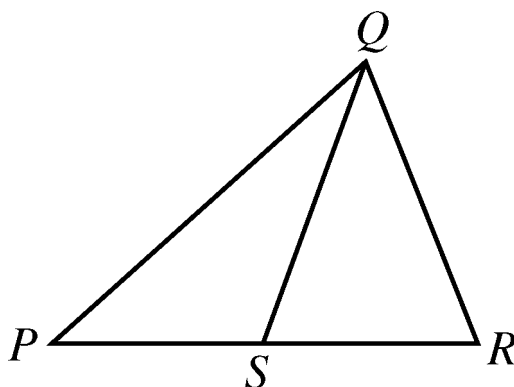
Quantity A

Quantity B

**Example 1:**     $(2)(6)$

$2 + 6$

The correct answer choice for Example 1 is (A).  $(2)(6)$ , or 12, is greater than  $2 + 6$ , or 8.



**Example 2:**     $PS$

$SR$

The correct answer choice is (D). The relationship between  $PS$  and  $SR$  cannot be determined from the information given since equal measures cannot be assumed, even though  $PS$  and  $SR$  appear to be equal in the figure.

---

**GO ON TO THE NEXT PAGE.**

$x$  is a positive integer and  $y$  is a negative integer.

Quantity A

Quantity B

1.                       $x - y$                        $y - x$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

The probability that events  $E$  and  $F$  will both occur is 0.42.

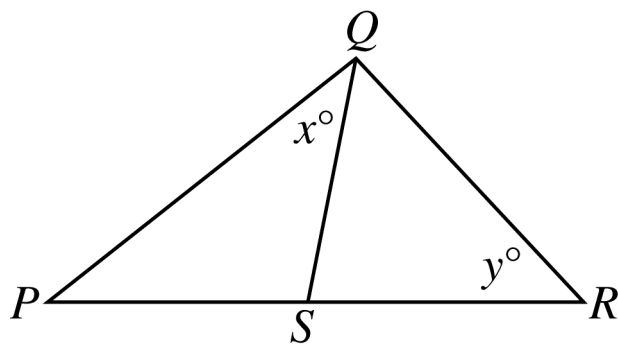
Quantity A

Quantity B

2.    The probability that event  $E$  will occur                      0.58

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



$$PS = SR$$

Quantity A

Quantity B

3.

$x$

$y$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

$a$  and  $b$  are positive integers.

Quantity A

Quantity B

4.

$$\frac{a}{b}$$

$$\frac{a + 3}{b + 3}$$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

The arithmetic mean of 100 measurements is 23, and the arithmetic mean of 50 additional measurements is 27.

Quantity A

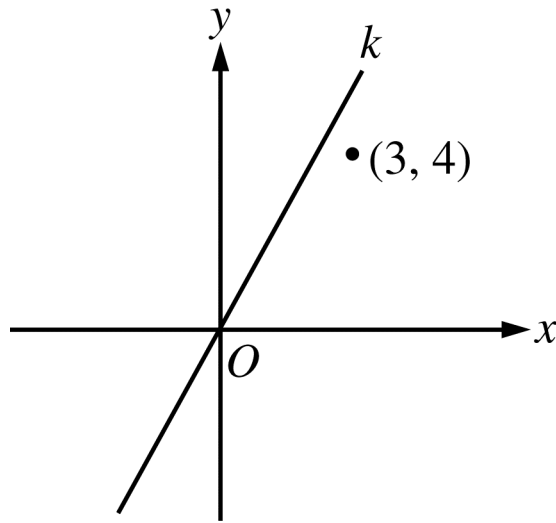
Quantity B

5. The arithmetic mean of  
the 150 measurements

25

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



Quantity A

Quantity B

6. The slope of line  $k$  1
- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

**GO ON TO THE NEXT PAGE.**

One of the roots of the equation  $x^2 + kx - 6 = 0$  is 3, and  $k$  is a constant.

Quantity A

Quantity B

7.                      The value of  $k$      $-1$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

The original price of a suit was 30 percent less than the suit's \$250 suggested retail price. The price at which the suit was sold was 20 percent less than the original price.

Quantity A

Quantity B

8.            The price at which                      50% of the suit's  
                 the suit was sold                      suggested retail price

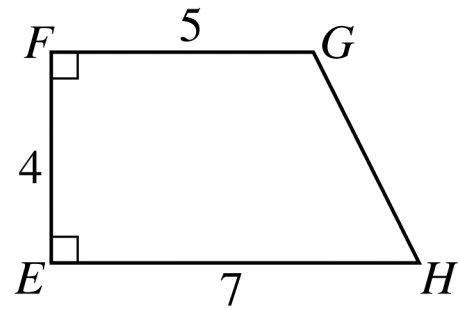
- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**





Quantity A



Quantity B

9.      The area of rectangular region  $ABCD$       The area of trapezoidal region  $EFGH$
- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

**Questions 10–25 have several different formats, including both selecting answers from a list of answer choices and numeric entry. With each question, answer format instructions will be given.**

### **Numeric-Entry Questions**

These questions require a number to be entered by circling entries in a grid. If you are not filling in your own answers, your scribe should be familiar with these instructions.

1. Your answer may be an integer, a decimal, or a fraction, and it may be negative.
2. Equivalent forms of the correct answer, such as 2.5 and 2.50, are all correct. Although fractions do not need to be reduced to lowest terms, they may need to be reduced to fit in the grid.
3. Enter the exact answer unless the question asks you to round your answer.
4. If a question asks for a fraction, the grid will have a built-in division slash (/). Otherwise, the grid will have a decimal point.
5. Start your answer in any column, space permitting. Circle no more than one entry in any column of the grid. Columns not needed should be left blank.
6. Write your answer in the boxes at the top of the grid and circle the corresponding entries. **You will receive credit only if your grid entries are clearly marked, regardless of the number written in the boxes at the top.**

**GO ON TO THE NEXT PAGE.**

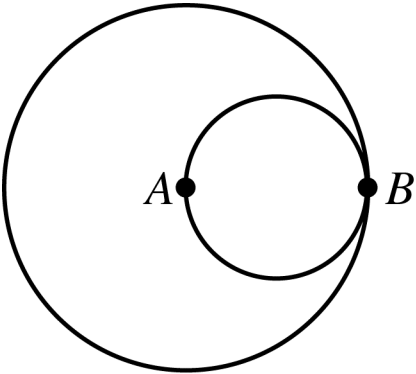
This question has five answer choices. Select the best **one** of the answer choices given.

10. If  $j$  and  $k$  are integers and  $j - k$  is even, which of the following must be even?

- (A)  $k$
  - (B)  $jk$
  - (C)  $j + 2k$
  - (D)  $jk + j$
  - (E)  $jk - 2j$
- 

**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question enter a fraction in the grid provided below. The fraction can be positive or negative. Neither the numerator nor the denominator of the fraction can include a decimal point. The fraction does not have to be in lowest terms.



11. The circles shown are tangent at point  $B$ . Point  $A$  is the center of the larger circle, and line segment  $AB$  (not shown) is a diameter of the smaller circle. The area of the smaller circle is what fraction of the area of the larger circle?

				/			
–	0	0	0		0	0	0
	1	1	1		1	1	1
	2	2	2		2	2	2
	3	3	3		3	3	3
	4	4	4		4	4	4
	5	5	5		5	5	5
	6	6	6		6	6	6
	7	7	7		7	7	7
	8	8	8		8	8	8
	9	9	9		9	9	9

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, and as many as all five of the answer choices.

12. Last year Kate spent between  $\frac{1}{4}$  and  $\frac{1}{3}$  of her gross income on her mortgage payments. If Kate spent \$13,470 on her mortgage payments last year, which of the following could have been her gross income last year?

Indicate **all** possible values.

- ☐ A    \$40,200
  - ☐ B    \$43,350
  - ☐ C    \$47,256
  - ☐ D    \$51,996
  - ☐ E    \$53,808
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

13. In State X, all vehicle license plates have 2 letters from the 26 letters of the alphabet followed by 3 one-digit numbers. How many different license plates can State X have if repetition of letters and numbers is allowed?

- ☐ A 23,400
  - ☐ B 60,840
  - ☐ C 67,600
  - ☐ D 608,400
  - ☐ E 676,000
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

14. If  $p$  is a negative number and  $0 < s < |p|$ , which of the following must also be a negative number?

(A)  $(p + s)^2$

(B)  $(p - s)^2$

(C)  $(s - p)^2$

(D)  $p^2 - s^2$

(E)  $s^2 - p^2$

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

15. If  $\frac{1}{2^k} + \frac{1}{2^k} = \frac{1}{2^x}$ , then  $x$  expressed in terms of  $k$  is

(A)  $\frac{k}{2}$

(B)  $k - 1$

(C)  $k + 1$

(D)  $2k$

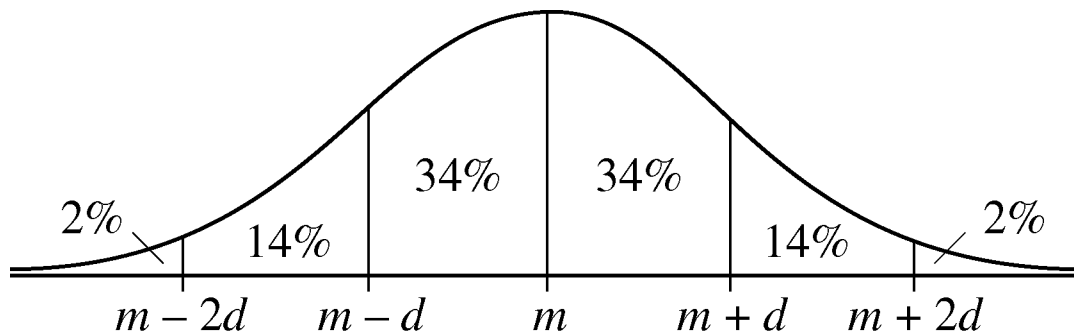
(E)  $k^2$

---

**GO ON TO THE NEXT PAGE.**



This question has five answer choices. Select the best **one** of the answer choices given.



16. The figure shows a normal distribution with mean  $m$  and standard deviation  $d$ , including approximate percents of the distribution in each of the six regions shown.

For a population of 800,000 subway riders, the numbers of subway trips taken per rider last January are approximately normally distributed with a mean of 56 trips and a standard deviation of 13 trips. Approximately how many of the riders took between 30 and 43 trips last January?

- (A) 60,000
- (B) 110,000
- (C) 160,000
- (D) 210,000
- (E) 270,000

---

**GO ON TO THE NEXT PAGE.**

Questions 17-20 are based on the data presented on the facing page.  
In order to fit on the page, the data presentation has been turned  
90 degrees.

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**GO ON TO THE NEXT PAGE.**

# STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender  
Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
Total	860	540

Percent of Total Enrollment Majoring  
in Selected Academic Areas

Area	Percent
Humanities	33%
Social sciences	30%
Physical sciences	24%

Note: No student is majoring in  
more than one area.

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

17. The ratio of the number of male freshmen to the number of female sophomores is approximately

(A) 2 to 1  
(B) 3 to 1  
(C) 3 to 2  
(D) 4 to 1  
(E) 5 to 3

---

This question has five answer choices. Select the best **one** of the answer choices given.

18. If the total enrollment is 12 percent greater than it was five years ago, what was the total enrollment five years ago?

(A) 1,180  
(B) 1,192  
(C) 1,220  
(D) 1,232  
(E) 1,250

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

19. How many students are either juniors or males or both?

- ☐ A 678
  - ☐ B 766
  - ☐ C 948
  - ☐ D 1,130
  - ☐ E 1,312
- 

This question has three answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all three of the answer choices.

20. Which of the following statements must be true?

Indicate **all** such statements.

- ☐ A The number of males majoring in physical sciences is greater than the number of females majoring in that area.
  - ☐ B Students majoring in either social sciences or physical sciences constitute more than 50 percent of the total enrollment.
  - ☐ C The ratio of the number of males to the number of females in the senior class is less than 2 to 1.
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

21. The quantities  $S$  and  $T$  are positive and are related by the equation

$S = \frac{k}{T}$ , where  $k$  is a constant. If the value of  $S$  increases by 50 percent, then the value of  $T$  decreases by what percent?

- (A) 25%
  - (B)  $33\frac{1}{3}\%$
  - (C) 50%
  - (D)  $66\frac{2}{3}\%$
  - (E) 75%
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

22. If  $x$  and  $y$  are the tens digit and the units digit, respectively, of the product  $725,278 \times 67,066$ , what is the value of  $x + y$ ?

- (A) 12
  - (B) 10
  - (C) 8
  - (D) 6
  - (E) 4
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

23. A developer has land that has  $x$  feet of lake frontage. The land is to be subdivided into lots, each of which is to have either 80 feet or 100 feet of lake frontage. If  $\frac{1}{9}$  of the lots are to have 80 feet of frontage each and the remaining 40 lots are to have 100 feet of frontage each, what is the value of  $x$  ?

- (A) 400
  - (B) 3,200
  - (C) 3,700
  - (D) 4,400
  - (E) 4,760
- 

**GO ON TO THE NEXT PAGE.**



This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

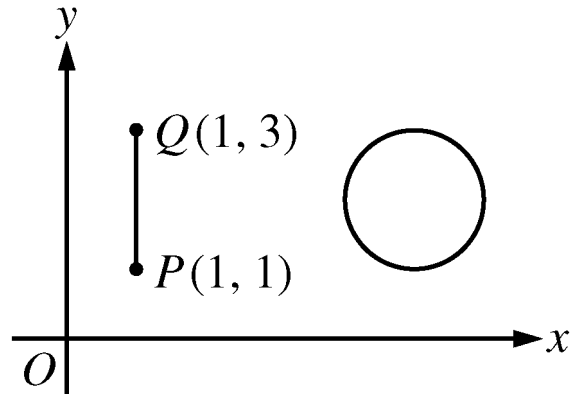
10, 10, 10, 10, 8, 8, 8, 8, 12, 12, 11, y

24. The twelve numbers shown represent the age, in years, of the twelve houses on a certain city block. What is the median age, in years, of the twelve houses on the block?

								years
—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

**GO ON TO THE NEXT PAGE.**

This question has eight answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all eight of the answer choices.



25. The figure shows line segment  $PQ$  and a circle with radius 1 and center  $(5, 2)$  in the  $xy$ -plane. Which of the following values could be the distance between a point on line segment  $PQ$  and a point on the circle?

Indicate **all** such values.

- ☐ A 2.5
- ☐ B 3.0
- ☐ C 3.5
- ☐ D 4.0
- ☐ E 4.5
- ☐ F 5.0
- ☐ G 5.5
- ☐ H 6.0

---

**GO ON TO THE NEXT PAGE.**