

SECTION 4: VERBAL REASONING

For questions 1 through 6, select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.

1 of 20

The professor is a noteworthy intellect, and as a teacher she shows more (i) _____ than her colleagues, whose teaching skills are (ii) _____ procedure.

Blank (i)

Blank (ii)

prowess	spurious
profligacy	maladroit
orthodoxies	eclectic

2 of 20

It would be (i) _____ for our leaders, given their responsibilities as democratically elected officials, to neglect to do everything they could to (ii) _____ an entirely (iii) _____ problem.

Blank (i)

Blank (ii)

Blank (iii)

irresponsible	forestall	benign
necessary	sustain	unimportant
frivolous	cultivate	avoidable

3 of 20

Despite her mentor's advice that she attempt to sound consistently _____, the graduate student often resorted to using slang when presenting significant parts of her

thesis, her habitual speech patterns overriding her years of learning.

lucid
didactic
panegyrical
erudite
rational

4 of 20

Although she felt Steve (i)_____ the subtlety of the delicious stew recipe with his addition of the sweet potato, she thought the pungent onion (ii)_____ the otherwise (iii)_____ taste combination.

Blank (i)

Blank (ii)

Blank (iii)

depleted	exaggerated	delicate
permeated	overwhelmed	zesty
augmented	satiated	detestable

5 of 20

At first, a still-life painting can appear quite (i)_____, its focus on such everyday objects as flowers or fruits apparently uninspired. In the hands of (ii)_____, however, careful attention to slight shifts of color and texture can lead to a truly (iii)_____ and exemplary painting.

Blank (i)

Blank (ii)

Blank (iii)

vital	a gauche	unstinting
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luxuriant	an adept	sublime
banal	an ascetic	prosaic

6 of 20

The leaders of Ukraine’s “Orange Revolution” were a study in contrasts. At the center of the political storm stood Viktor Yushchenko, his once (i)_____ face transformed into a monstrous mask by dioxin poisoning; but, at his side, no one could miss the (ii)_____ Yulia Tymoshenko, soon to become the world’s only prime minister to adorn the covers of fashion magazines.

Blank (i)

Blank (ii)

quiescent	prepossessing
fatuous	decorous
comely	felicitous

For each of Questions 7 to 11, select one answer choice unless otherwise instructed.

Questions 7 through 9 are based on the following reading passage.

In analyzing the poetry of Mona Feather, we are confronted with three different yardsticks by which to measure her work. We could consider her poems as the product of a twentieth-century artist in the tradition of James Joyce, T.S. Eliot, and Wallace Stevens. However, to do so would be to ignore a facet that informs every word she writes and that stems from her identity as a woman. Yet, to characterize her solely as a woman poet is to deny her cultural heritage, for Mona Feather is also the first modern poet of stature who is also an American Indian.

Stanley Wilson has argued compellingly that the huge popularity Feather enjoys among the Indian reservation school population of the United States is creating a whole new generation of poetry enthusiasts in an age when the reading of poetry is on the wane. While this is undoubtedly true, Mr. Wilson's praise gives the impression that Feather's readership is limited to her own culture—an impression which hints that Mr. Wilson is himself measuring her by only one criterion. Radical feminist writers have long found in Feather's poetry a sense of self-pride which strikes a chord with their own more political philosophies. Her imagery, which always made use of the early Native American traditions in which the woman had an important role, was seen as the awakened sensibility of a kindred spirit.

Yet for all the “feminist” touches in her writing, it would be a disservice to consign Feather to the ranks of politicized writers, for her message is deeper than that. The despair that characterized twentieth-century modern poets is to be found in Mona Feather's work as well; she writes of the American Indians of the 1930s confined to ever-shrinking reservations and finds in that a metaphor for all of modern mankind trapped on a shrinking earth of limited resources.

7 of 20

The primary purpose of the passage is to

- describe the work of Mona Feather
- compare Feather with Joyce, Eliot, and Stevens
- show Feather's roots in her Native American heritage
- argue that Mona Feather's work can be looked at in several different ways
- discuss the women's movement in America

8 of 20

The passage implies that the author believes Stanley Wilson's view of Feather is

- a compelling and complete assessment of her work
- focused too much on her status as a Native American poet
- meant to disguise his opinion of Feather as a poet lacking in talent
- critical of Native American children's literary judgment
- based on all major themes and images in her poetry

9 of 20

The author mentions James Joyce, T.S. Eliot, and Wallace Stevens in order to

- compare the political messages in Feather's work to those in the work of other authors
- highlight the radical differences between male and female poets in the twentieth century
- contrast Feather's thematic choices with those of her contemporaries
- enumerate a list of artists whose sensibilities made them Feather's kindred spirits
- describe a critical context in which Feather's work can be analyzed

Questions 10 through 11 are based on the following reading passage.

Among the more interesting elements of etymology is the attempt to derive the meaning of seemingly nonsensical expressions. Take, for instance, the increasingly archaic rural phrase "to buy a pig in a poke." For centuries, the expression has been used to signify the

purchase of an item without full knowledge of its condition. It relates to the common Renaissance practice of securing suckling pigs for transport to market in a poke, or drawstring bag. Unscrupulous sellers would sometimes attempt to dupe purchasers by replacing the suckling pig with a cat, considered worthless at market. An unsuspecting or naïve buyer might fail to confirm the bag's contents; a more urbane buyer, though, would be sure to check and—should the seller be dishonest—"let the cat out of the bag."

10 of 20

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

Which of the following phrases from the passage would help the reader infer the meaning of the word urbane as used in context?

- "increasingly archaic rural phrase"
- "without full knowledge"
- "unsuspecting or naïve buyer"

11 of 20

Select the sentence in which the author provides a definition for an antiquated term that may be unfamiliar to the reader.

For questions 12 through 15, select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12 of 20

Although she was such a bad-mannered child that she was sent to a boarding school, as an adult she is the very model of _____.

- friendliness
- diffidence
- propriety
- reticence
- decorum
- brashness

13 of 20

Politicians sometimes appear to act in a manner that is almost _____ ; however, when all the information is released after the fact, it is apparent that they were acting according to a deliberate plan.

- pithy
- conventional
- conformist
- whimsical
- flawless
- capricious

14 of 20

Forced to take an alternate road when a massive oil spill closed the highway, the two-hour detour made their already arduous trip even more _____ .

- irksome
- onerous
- facile
- glib
- implacable

immutable

15 of 20

Though many of her contemporaries found her odd, Ella Wilkins is now much admired for her _____ spirit, especially her willingness to reject prevailing feminine roles and to travel to foreign lands alone.

forlorn

magnanimous

adventurous

bellicose

desolate

doughty

For each of Questions 16 to 20, select one answer choice unless otherwise instructed.

16 of 20

Microfiber synthetics have been taking the place of natural fibers in an ever-increasing number of clothes because they provide the same durability and deplete fewer natural resources. A shirt made of microfiber synthetics is, however, three times as expensive to produce as a natural-fiber shirt. It follows that the substitution of microfiber synthetic clothes for natural-fiber clothes is, at this time, not recommended from a financial standpoint.

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

- A microfiber synthetic shirt costs one-half the price of a natural-fiber shirt to maintain.
- The production of microfiber synthetic clothes necessitates garment factories to renovate obsolete machinery and to hire

extra workers to operate the new machines.

- The upkeep of natural-fiber shirts is far less expensive than the upkeep of any other natural-fiber garment in current production.
- While producers anticipate that the cost of microfiber synthetics will remain stable, they recognize that the advent of recycling programs for natural fibers should bring down the costs of natural fibers.
- The cost of providing stain guards for microfiber synthetic shirts would probably be greater than what garment producers now spend on stain guards for natural-fiber shirts.

Questions 17 through 18 are based on the following reading passage.

Scholars of early Buddhist art agree that Buddha images in human form emerged around the first century A.D. in the regions of Mathura, located in central India, and Gandhara, now part of Pakistan and Afghanistan. Uncertainty exists, however, about whether Mathura or Gandhara has the stronger claim to primacy. Those who believe that anthropomorphic sculptures of the Buddha first appeared in Gandhara point out that earlier Buddhist art was largely aniconic and that *bas relief* was far more common than sculpture. They argue that Greek influence in Gandhara promoted the development of the new style and form of representation of the divine. Other scholars make the case for indigenous development of such representations in Mathura, citing a centuries-long record of iconic art in pre-Buddhist traditions. They do not reject all foreign influence, but they argue that local traditions provided a strong foundation for the development of Buddhist sculpture.

Art historians bolster their arguments by highlighting distinctive features of the sculptures from each region.

For example, the artists of Gandhara sculpted their Buddhas in heavy, pleated drapery, similar to that of Greek statues. Wavy lines indicating hair also reflect Greek influence. Mathura Buddhas, on the other hand, are portrayed wearing lighter robes draped in a monastic style, often with part of the shoulder and chest left bare. Elongated earlobes and strong facial features characterize Mathura images of the Buddha, whereas Gandhara images possess more angular features. Sorting out dates and directions of influence has proven difficult, but the totality of evidence suggests that the Buddha image evolved simultaneously in both regions and was shaped by the predominant cultural influences in each region.

17 of 20

Which of the following, if true, would those who believe that anthropomorphic images of Buddha originated in Gandhara be likely to cite as evidence for their viewpoint?

- Pre-Buddhist subcultures in the Gandhara region created representations of their deities in human form.
- Mathuran Buddhas' lightweight robes appear to have been modeled on the real robes of people who lived in a warm climate.
- Gandharan artists were isolated from the larger society and not exposed to influences from outside the region.
- Rulers from the Mathura region had political ties to Greek rulers and frequently exchanged gifts with them.
- The hairstyles worn by Gandharan Buddhas are similar to those depicted on Greek pottery from the same period.

18 of 20

According to the passage, Buddhist art

- first appeared in regions that are now part of India, Pakistan, and Afghanistan
- experienced a period during which human representations of the Buddha were not common
- characteristically portrayed figures with elongated earlobes and strong facial features
- began to appear in the medium of *bas relief* as a result of Greek influence
- was more influenced by foreign artworks than by indigenous artistic traditions

Questions 19 through 20 are based on the following reading passage.

In 1887, Eugene Dubois began his search in Sumatra for the “missing link”—the being that would fill the evolutionary gap between ape and man. He discovered a fossilized human-like thighbone and a section of skull. He confirmed that these fossils were of significant age by examining other fossils in the same area. The thighbone’s shape indicated that it belonged to a creature that walked upright. Dubois estimated the size of the creature’s skull from the skull fragment and concluded that this creature’s brain volume was between that of the higher primates and that of current humans. Although the concept of “missing link” has changed dramatically and a recent analysis showed Dubois’s fossils to be far too recent for humans to have evolved from this “missing link,” the value of his discovery and the debate it generated is unquestionable.

19 of 20

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

The passage supplies information to answer which of the following questions?

- What was the approximate age of the fossils found by Dubois?
- Does Dubois's find meet current definitions of the "missing link"?
- Do the flaws in Dubois's conclusions invalidate his work?

20 of 20

Select a sentence in which the author reaches a conclusion.

SECTION 5: QUANTITATIVE REASONING

For each of Questions 1 to 8, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the four answer choices below each question and fill in the circle to the left of that answer choice.

- (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.*

A symbol that appears more than once in a question has the same meaning throughout the question.

1 of 20

A circle with center R has a radius of 6 and is inscribed in square ABCD.

Quantity A

The area of the largest triangle that can be drawn inside square $ABCD$

Quantity B

The area of the circle with center R

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

2 of 20

$$xy \neq 0$$

$$\frac{a}{xs} = 632 \text{ and } \frac{a}{ys} = 158$$

Quantity A

x

Quantity B

y

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

3 of 20

Quantity A

The remainder when
135 is divided by 7

Quantity B

The remainder when
135 is divided by 19

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

4 of 20

a and b are integers.

$$a^2 = b^3$$

Quantity A

Quantity B

a

b

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

5 of 20

$$ab < 0$$

$$bc > 0$$

Quantity A

$$ac$$

Quantity B

$$0$$

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

6 of 20

$$|x| = 6$$

$$y = x + 4$$

Quantity A

$$y$$

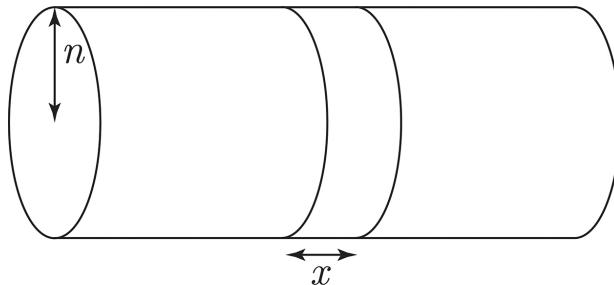
Quantity B

$$10$$

- Quantity A is greater.
- Quantity B is greater.

- The two quantities are equal.
- The relationship cannot be determined from the information given.

7 of 20



A rectangular ribbon of width x is wrapped around the circumference of a right circular cylinder of radius n , encircling the cylinder without overlap as shown in the figure above. The area of the ribbon is equal to the area of the base of the cylinder.

Quantity A

x

Quantity B

n

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

8 of 20

List A: 1, 2, 7, 8, 15, 2, 3, 5, 6, 13

x is the median of the even numbers in List A.

y is the median of the prime numbers in List A.

z is the median of the least and greatest numbers in List A.

Quantity A

The median of $2x$, y ,
and z

Quantity B

z

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

9 of 20

Oil is pumped from a well at a rate of 500 gallons per hour.
How many gallons of oil are pumped from the well in 3 hours
and 15 minutes?

10 of 20

A certain pet store sells only dogs and cats. In March, the store sold twice as many dogs as cats. In April, the store sold twice the number of dogs that it sold in March, and three times the number of cats that it sold in March. If the total number of pets the store sold in March and April combined was 500, how many dogs did the store sell in March?

- 80
- 100
- 120
- 160
- 180

11 of 20

In the xy -plane, rectangle $WXYZ$ has vertices at $(-2, -1)$, $(-2, y)$, $(4, y)$, and $(4, -1)$. If the area of $WXYZ$ is 18, what is the length of its diagonal?

- $3\sqrt{2}$
- $3\sqrt{3}$
- $3\sqrt{5}$
- $3\sqrt{6}$
- $3\sqrt{7}$

12 of 20

How many three-digit integers can be created using only 5 distinct digits?

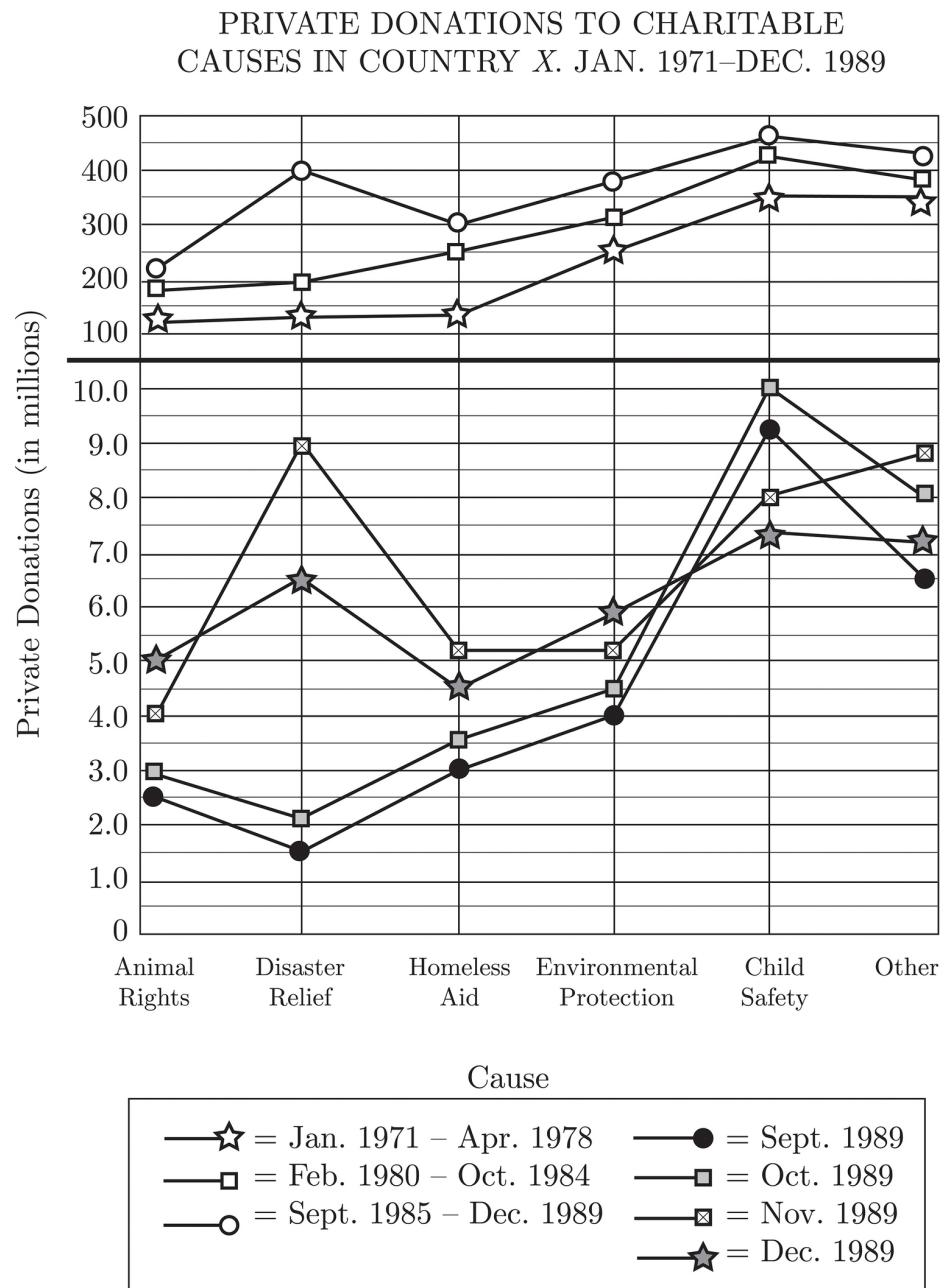
- 10
- 15
- 20
- 30
- 60

13 of 20

At Megalomania Industries, factory workers were paid \$20 per hour in 1990 and \$10 per hour in 2000. The CEO of Megalomania Industries was paid \$5 million in 1990 and \$50 million in 2000. The percent increase in the pay of Megalomania's CEO from 1990 to 2000 was what percent greater than the percent decrease in the hourly pay of Megalomania's factory workers over the same period?

- 850%
- 900%
- 950%
- 1,700%
- 1,900%

Questions 14 through 16 refer to the following graph.



14 of 20

If there were 38 child safety organizations and the funds contributed to these organizations in September 1989 were evenly distributed, how much did each charity receive?

- \$12,000,000

- \$9,400,000
- \$2,500,000
- \$250,000
- \$38,000

15 of 20

From September 1985 to December 1989, what was the approximate ratio of private donations for homeless aid to private donations for animal rights?

- 20 : 9
- 3 : 2
- 4 : 3
- 5 : 4
- 6 : 5

16 of 20

Which of the following charitable causes received the least percent increase in private donations from September 1989 to October 1989 ?

- Animal Rights
- Disaster Relief
- Homeless Aid
- Environmental Protection
- Child Safety

17 of 20

In the repeating decimal 0.0653906539..., the 34th digit to the right of the decimal point is

- 9

- 6
- 5
- 3
- 0

18 of 20

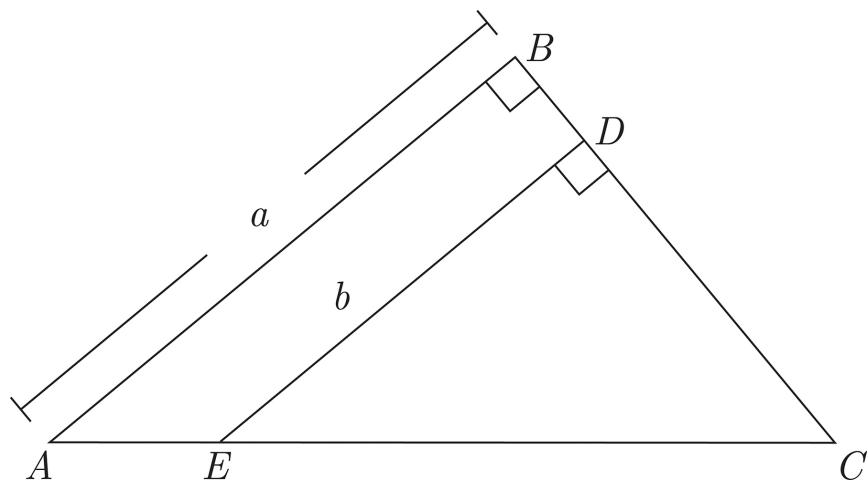
If $3x + 2y = 24$, and $\frac{7y}{2x} = 7$, then $y =$

19 of 20

If the average (arithmetic mean) of 6, 8, 10, and x is between 6 and 12, what is the greatest possible integer value of x ?

- 8
- 11
- 23
- 28
- 44

20 of 20



If $AB = BC$, which of the following is an expression for the area of quadrilateral $ABDE$?

$$\bigcirc \frac{a^2}{2}-\frac{b^2}{2}$$

$$\bigcirc \frac{a^2}{2}+\frac{b^2}{2}$$

$$\bigcirc a^2-b^2$$

$$\bigcirc \frac{a^2}{4}-\frac{ab}{2}$$

$$\bigcirc \frac{a^2}{4}+\frac{ab}{2}$$

SECTION 6: VERBAL REASONING

For questions 1 through 6, select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.

1 of 20

Many fashions that were considered daring in their time have been so widely worn and imitated that the (i)_____ style is no longer seen as (ii)_____.

Blank (i)

Blank (ii)

proposed	outlandish
original	commonplace
revealing	copied

2 of 20

Western culture has so influenced Middle Eastern music that even the latter's roles of composer and performer, at one time inseparable, have now begun to _____.

divulge

retreat

retrench

diverge

fuse

3 of 20

Kazan was quickly (i)_____ by many of his contemporaries for his transgression, who saw his testimony

as treachery, an act of (ii)_____ that stained how they viewed him both as an artist and as a man. It was only by continually making films that he was able to (iii)_____ his perceived sins and achieve some measure of atonement.

Blank (i)	Blank (ii)	Blank (iii)
rebuked	perfidy	exacerbate
lauded	sophistry	deviate
mitigated	redemption	expiate

4 of 20

Although tranquilizers usually have a _____ effect, this is not always the case, especially when the abuse of these drugs results in a failure to induce the much-desired sleep.

soporific
sedulous
coruscating
debilitating
penetrating

5 of 20

As a rule, (i)_____ interpretations of events are rejected by modern scientists in their attempts to find secular insights into the matrix of causes and effects in our modern world. Paradoxically, this fact does not (ii)_____ the existence of individual scientists who possess views that may be (iii)_____ with a belief in supernatural causes.

Blank (i)**Blank (ii)****Blank (iii)**

falsifiable	countenance	at variance
preternatural	enhance	consonant
teleological	preclude	discrepant

6 of 20

The Johnsons were not known for their (i)_____ ; at the very least, none of the family members was fearful of (ii)_____, of appearing or acting differently from other people.

Blank (i)**Blank (ii)**

candor	pettiness
vulgarity	eccentricity
conformity	complaisance

For each of Questions 7 to 12, select one answer choice unless otherwise instructed.

Questions 7 through 10 are based on the following reading passage.

According to most scientists, the universe began approximately 10 to 15 billion years ago and has been expanding ever since. This theory, known as the Big Bang theory, is the fairly direct result of Hubble's law, which states that objects farther away from Earth are receding faster than those closer. This expansion implies a singular point which all matter is expanding from.

Complicating the scientific explanation is that the Big Bang cannot be thought of as an explosion from some identifiable source—rather, space and time were created in the Big Bang. Furthermore, the relationship between

distance and speed is not precisely linear. So, if one were to think of galaxies as particles created in a big bang, these galaxies have both a local component of motion, as well as playing a role in the overall expansion of the universe.

A further complication is that galactic distances are so great that galactic motion, even if the galaxies are moving at incredible speeds, is difficult to observe. Scientists must therefore rely on a “standard candle,” an object of known brightness within the galaxy they wish to observe. Using the inverse square law, scientists can then measure how far that galaxy is away from our own. For instance, suppose a supernova in galaxy A appears one hundred times as bright as one in galaxy B. By the inverse square law, galaxy B is ten times farther away than galaxy A, assuming, of course, that distance is the only factor affecting brightness.

7 of 20

It can be inferred from the sentence highlighted in the passage that a standard candle is useful to scientists for which of the following reasons?

- Standard candles do not have their own locus of motion.
- Standard candles more reliably adhere to the law of inverse squares than do other supernovas.
- Only standard candles provide a known measure of brightness.
- Knowledge of an object’s brightness allows scientists to measure the speed at which the object is moving toward Earth.
- Knowledge of an object’s brightness allows scientists to accurately measure its distance from Earth.

8 of 20

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

According to the passage, if two astronomical objects of differing distances from Earth were observed, which of the following would be true of the object closer to Earth?

- It would not be as bright as the object farther from Earth.
- It would be younger than the object farther from Earth.
- It would be traveling away from the Earth more slowly than the farther object.

9 of 20

It can be inferred from the passage that a standard candle may not provide an accurate measure of distance if

- the galaxy being measured is moving too quickly
- interstellar dust makes the object measured appear dimmer than it really is
- the galaxy being measured has a local component of measurement
- the particles being measured do not completely accord with a linear motion
- the galaxies being measured move at different speeds

10 of 20

According to the passage, if two supernovas are observed and one of those supernovas is brighter than the other, scientists can conclude that

- the brighter supernova is moving closer to our galaxy at a higher speed
- the precise location of the supernova is measurable
- the brighter supernova may be closer to our own galaxy

- the brighter supernova is farther away from Earth by a distance that is roughly inversely proportional to the dim supernova
- the distance between the supernovas and our own galaxy is inversely proportional

Questions 11 through 12 are based on the following reading passage.

Throughout the twentieth century, it was accepted as fact that cells in our brains, called neurons, do not regenerate. Research by neurologist Elizabeth Gould overturned this core doctrine within the span of a few years. Her experiments on rats showed that even after suffering severe trauma, their brains were able to heal themselves by regenerating neurons. Gould's findings have incited a flood of new research into applications that may take advantage of neurogenesis.

One such study examines the role of reduced neurogenesis among individuals suffering from depression. It is speculated that neurogenesis may contribute to an explanation for the so called "Prozac lag." As an antidepressant, the immediate boost of serotonin caused by Prozac should have had instantaneous mood elevating effects. However, patients suffering from depression only begin to experience mood elevation weeks after beginning treatment. The study speculates that during this period, the brain may be regenerating neurons.

11 of 20

The author mentions the "Prozac lag" primarily in order to

- raise a possible objection to a newly proposed theory
- present a situation for which a new theory may serve an explanatory role

- offer evidence that runs counter to a previously held belief
- suggest a counterexample that undermines a newly proposed theory
- provide supporting evidence that a newly discovered phenomenon may have unforeseen effects

12 of 20

In the second paragraph, select the sentence in which the author describes an unexpected observation.

For questions 13 through 16, select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

13 of 20

Plato, an important philosopher, is primarily known because he wrote down Socrates's _____ conversations. It is through Plato's record of these dialogues that Socrates's teachings have survived and continue to enlighten seekers of wisdom.

- inspiring
- edifying
- tedious
- grating
- rousing
- didactic

14 of 20

Even the colossal meal failed to _____ her voracious appetite.

- cadge

- exacerbate
- provoke
- satiate
- mendicate
- allay

15 of 20

Slicks of oil on a rain-soaked street are _____ and beautiful, but the lovely rainbows they produce on the asphalt can seem rather ugly when one reflects upon the road hazards they create and the environmental damage they entail.

- anodyne
- iridescent
- monocoque
- pavonine
- parietal
- saturnine

16 of 20

He had not always been so callous, but with time he became _____ to the violence around him.

- adorned
- cauterized
- sensitized
- ostracized
- inured
- attuned

For each of Questions 17 to 20, select one answer choice unless otherwise instructed.

17 of 20

When the maker of Megapower, a vitamin supplement, modified its formula two years ago, Tasmania, an island off the coast of New Zealand, suffered a decrease in its export earnings. Tasmania's only export, kiwi fruit, constitutes a substantial portion of the world supply of that fruit. Researchers concluded that the old Megapower formula contained natural kiwi extract, but the new formula does not. Which of the following, if true, gives the strongest support for the researchers' claim?

- Some South American countries have begun to grow kiwi fruit successfully.
- United States chemists have started development of a synthetic kiwi extract.
- The manufacturers of Megapower chose not to renew their contract with the Tasmanian kiwi growers.
- Imports of kiwi fruit have fallen in the country where Megapower is manufactured.
- There was a marked drop in sales of a number of formerly profitable items that used kiwi as an ingredient.

Questions 18 through 20 are based on the following reading passage.

While art historians do not necessarily agree on the date of the birth of modern art, they do agree that mid-nineteenth century French art shows a clear and distinct break from tradition. Pressed to point to a single picture that represents the vanguard of the modern art movement, art historians will often point to Courbet's *The Painter's Studio*.

The peculiar subtitle of Courbet's work, "Real allegory summing up a seven-year period of my life" confirms that Courbet was striving to do something strikingly original with his work. The argument has been made that the painting struck a blow for the independence of the artist, and that since Courbet's work, artists have felt freed from the societal demands placed upon their work. Paintings prior to Courbet's time were most often focused on depicting events from the Bible, history, or literature. With his singular painting, Courbet **promulgated** the idea that an artist is capable of representing only that which he can experience through his senses of sight and touch; the true artist will then be compelled to make his representation as simply and directly as possible.

18 of 20

Which of the following would most effectively replace the word **promulgated** as it is used in the context of the passage?

- Displayed
- Disseminated
- Proclaimed
- Concealed
- Secreted

19 of 20

Select the sentence in the passage that best explains the effect of Courbet's work on other artists.

20 of 20

The effect that Courbet had on painting is most analogous to which situation?

- An avant-garde writer who subverts novelistic conventions

- A machinist who tinkers and improves his invention
- A watercolor painter who paints in the same style as his peers
- A scientist who comes up with a unified theory of several discordant scientific ideas
- A seamstress who makes a ball gown using several different types of fabric

Chapter 19

Practice Test 1: Answers and Explanations

PRACTICE TEST 1: ANSWER KEY

Section 3: Quantitative Reasoning

1. A
2. A
3. B
4. D
5. E and F
6. C
7. B
8. C
9. 56
10. D
11. D
12. B
13. D
14. C
15. C
16. B and D
17. 270
18. B
19. D
20. A

Section 4: Verbal Reasoning

- 1.** prowess and maladroit
 - 2.** irresponsible, forestall, and avoidable
 - 3.** erudite
 - 4.** augmented, overwhelmed, and delicate
 - 5.** banal, an adept, and sublime
 - 6.** comely and prepossessing
- 7.** D
- 8.** B
- 9.** E
- 10.** C
- 11.** It relates to the common Renaissance practice of securing suckling pigs for transport to market in a poke, or drawstring bag.
- 12.** propriety and decorum
 - 13.** whimsical and capricious
 - 14.** irksome and onerous
 - 15.** adventurous and doughty
- 16.** A
- 17.** E
- 18.** B
- 19.** B and C
- 20.** Although the concept of “missing link” has changed dramatically and a recent analysis showed Dubois’s fossils to be far too recent for humans to have evolved from this “missing link,” the value of his discovery and the debate it generated is unquestionable.

Section 5: Quantitative Reasoning

1. B
2. D
3. C
4. D
5. B
6. D
7. B
8. C
9. 1,625
10. B
11. C
12. E
13. D
14. D
15. C
16. E
17. D
18. $\frac{48}{7}$
19. C
20. A

Section 6: Verbal Reasoning

1. original and outlandish
2. diverge
3. rebuked, perfidy, and expiate

4. soporific
5. preternatural, preclude, and consonant
6. conformity and eccentricity
7. E
8. C
9. B
10. C
11. B
12. However, patients suffering from depression only begin to experience mood elevation weeks after beginning treatment.
13. edifying and didactic
14. satiate and allay
15. iridescent and pavonine
16. cauterized and inured
17. D
18. C
19. The argument has been made that the painting struck a blow for the independence of the artist, and that since Courbet's work, artists have felt freed from the societal demands placed upon their work.
20. A

INTERPRETING YOUR RESULTS

After you check your answers on the following pages, fill out this sheet to interpret your results.

Analytical Writing

To evaluate your performance on the Analytical Writing sections, compare your response to the advice and samples in the Analytical Writing chapter.

Verbal Reasoning

Refer to the explanations to check your answers. Count the number of questions you got correct in each Verbal Reasoning section, and calculate the total number correct. Find the section of the Interpretive Guide (below) that corresponds to your total to get an idea of how your performance compares to that of other test takers.

Test 1	# Correct
Section 4	
Section 6	
Total	

Quantitative Reasoning

Refer to the explanations to check your answers. Count the number of questions you got correct in each Quantitative Reasoning section, and calculate the total number correct. Find the section of the Interpretive Guide (below) that corresponds to your total to get an idea of how your performance compares to that of other test takers.

Test 1	# Correct
Section 3	
Section 5	
Total	

Interpretive Guide

The table below provides a guide for interpreting your performance based on the number of questions you got correct in each subject.

Subject	Above Average	Average	Below Average
Verbal Reasoning	30–40	22–29	1–21
Quantitative Reasoning	33–40	24–32	1–23

Section 3

1. **A**

Point C has the same x -coordinate as point D , so $s = 8$. Point C also has the same y -coordinate as point B , so $t = 7$. That means that Quantity A is greater.

2. **A**

The punch is made with two parts soda and three parts ice cream. This means that in one mixture if you added two parts of soda, then that's $4 \times 2 = 8$ parts sugar and $5 \times 2 = 10$ parts citric acid. If you added three parts ice cream, then that's $3 \times 3 = 9$ parts sugar and $2 \times 3 = 6$ parts citric acid. There's $8 + 9 = 17$ total parts sugar and $10 + 6 = 16$ total parts citric acid. There's more sugar than citric acid. Choice (A) is correct.

3. **B**

This is a Quant Comp question with variables, so Plug In more than once. To easily compare the two quantities, recycle the number in the problems by Plugging In $x = 5$.

This problem involves averages, so draw an Average Pie. If $x = 5$, and the average high temperature over the course of 5 days is 70 degrees, then the total temperature for the 5 days is $5 \times 70 = 350$. The problem states that one additional day has a high temperature of 75 degrees, so draw another average pie. There are now six days and the total high temperature is $350 + 75 = 425$ and the average high temperature for the six days is $\frac{425}{6} = 70\frac{5}{6}$. This is less than the 71 degree average specified in the problem.

Because the two quantities cannot both equal 5, eliminate (C). If it is unclear whether the value for x needs to be greater or less than 5 to make the average high temperature at the end of the problem equal to 71 degrees, Plug In again. This time, try a number less than 5, such as $x = 4$. If $x = 4$, then the total temperature for 4 days with an average of 70 degrees is $4 \times 70 = 280$. The addition of one day with a high temperature of 75 degrees means that the total high temperature is $280 + 75 = 355$ over the course of 5 days. Therefore, the average is $\frac{355}{5} = 71$.

Therefore, the correct value of x is 4 and so the value of Quantity A is 4. This is less than the value of Quantity B,

so the correct answer is (B).

4. **D**

Because ΔQRS is isosceles, side RS must be equal to one of the other sides, and x could measure 4 or 7. Thus, the perimeter could be $4 + 4 + 7 = 15$, or the perimeter could be $4 + 7 + 7 = 18$. You can't tell if the perimeter is greater or less than 17, so the answer is (D). Remember, you cannot trust the figure to be drawn to scale!

5. **E and F**

Start by finding the mean for Set A—this can be done by calculating the sum of the set divided by 4, or by observing that the numbers are evenly spaced, so the sum must be the average of the two middle numbers. The total variance of the set (the total distance of the members from the mean) is 8. Therefore, the possible values of x must create a total variance for Set B of equal to or greater than 8. Since the values of Set A are evenly spaced with a difference of 2 between each value, look for the answer choice that creates the same condition for Set B. The value 18 creates the set $\{12, 14, 16, 18\}$, which has a mean of 15 and a total variance from the mean of 8. This set would thus have the same standard deviation as that of Set A. Since the question asks for the values of x that would create a Set B with a higher standard deviation than that of Set A, x must be greater than 18. The correct answers are (E) and (F).

6. **C**

Plug In numbers for the sides. Let $AD = 4$, so $EG = 8$. Let $l = 3$. The area of $ABCD = 3 \times 4 = 12$, and the area of $EFG =$

$\frac{1}{2}(3 \times 8) = 12$. The two quantities can be equal, so eliminate (A) and (B). Try changing your numbers, and you will see that the two quantities will always be equal.

7. **B**

FOIL out the equation given, and you'll get $(3x - 4y)(3x + 4y) = 9x^2 - 16y^2$, so Quantity A is 2. Quantity B is therefore bigger, and the answer is (B).

8. **C**

Solve for a by adding 2 to each side to get $8a = 24$. Divide by 8 to find $a = 3$. Plug $a = 3$ into the second equation to find $4(3) - 1 = 12 - 1 = 11$. Alternatively, you could save yourself some time by noticing that $8a - 2$ is $2(4a - 1)$. If $2(4a - 1) = 22$, divide by 2 to get $4a - 1 = 11$.

9. **56**

Twenty percent of the sweaters in the store are white, so there are $200 \times \frac{20}{100} = 40$ white sweaters. There are $200 - 40 = 160$ sweaters remaining. Of the remaining sweaters, $160 \times \frac{40}{100} = 64$ are brown. That means that $160 - 64 = 96$ are blue. There are $96 - 40 = 56$ more blue sweaters than white sweaters.

10. **D**

Because 4^{12} is a common factor of both 4^{13} and 4^{12} , you can rewrite the numerator as $4^{12}(4 - 1)$. Now look at the whole fraction: $\frac{4^{12}(4 - 1)}{4^{11}}$. You can divide 4^{12} by 4^{11} , leaving you with $4^1(4 - 1)$. Now the calculation should be much easier: $4 \times 3 = 12$, (D).

11. **D**

Refer to the right side and the left side of the “Subscription to Newsmagazine x , 1995–2010” chart. In 2005, Newsmagazine x accounted for 14.6 percent of newsmagazine subscriptions, and it had 7,000 subscriptions.

12. **B**

In 2006, Newsmagazine z accounted for 9,400 out of 57,000 newsmagazine subscriptions. Therefore, Newsmagazine z accounted for approximately 9,000 out of 57,000, or $\frac{1}{6}$, of the nationwide newsmagazine subscriptions.

13. **D**

In 1995, there were 1,500 subscriptions to Newsmagazine x , which accounted for approximately 25 percent of total nationwide subscriptions. Total nationwide subscriptions

in 1995, then, were equal to about 6,000 (25 percent of total nationwide subscriptions = 1,500). Using the same process, total nationwide subscriptions in 1996 were equal to about 9,000 (30 percent of total nationwide subscriptions = 2,600). The percent increase between 1995 and 1996 is $\frac{\text{difference}}{\text{original}}$ or $\frac{9,000 - 6,000}{6,000} = \frac{3,000}{6,000} = \frac{1}{2}$, or 50 percent.

14. **C**

In 1998, Newsmagazine x had 3,300 subscriptions, or 20.5 percent of the total number of newsmagazine subscriptions. Set up the calculation to find the total:

$$3,300 = \frac{20.5}{100}x. \text{ Solve it to find that } x = 16,000.$$

15. **C**

$$\begin{aligned} a &= 27 \times \frac{1}{3^2} = 3, \text{ and } x = 6 \times \frac{1}{3} = 2. \text{ Find } (12)(3^{-x})(15)(2^{-a}) \\ &= (12)(3^{-2})(15)(2^{-3}) = \frac{(12)(15)}{(3^2)(2^3)}. \text{ Now, reduce:} \\ &\frac{(2 \times 2 \times 3)(3 \times 5)}{(3 \times 3)(2 \times 2 \times 2)} = \frac{5}{2}. \end{aligned}$$

16. **B and D**

Use the Average Pie to find that Jill's mean of 3.75 for 8 evaluations gives her a current total of $3.75 \times 8 = 30$ points. Use the Average Pie to find that if she needs an

average of 4.0 for 12 scores, she needs $4.0 \times 12 = 48$ total points. Jill still needs $48 - 30 = 18$ points. Her four remaining scores must total 18 or greater. Only (B) and (D) have a total of at least 18.

17. **270**

To answer this question remember that each angle in a rectangle is 90 degrees and there are 180 degrees in a triangle. Look at the figure. When presented with a shape like this, look for shapes that are familiar. The rectangle has been divided into 4 separate triangles. Three of the triangles have one side of the triangle that is represented by the angle of the original rectangle. For example, a triangle is represented by the angles of a and b as well as the 90 degree angle that is represented by point S . Since there are 180 degrees in a triangle, and 90 of those degrees are found at point S , the sum of angles a and b is 90. The same principle can be applied to the triangle that is created by angles c, d , and point T , as well as the triangle created by angles e, f , and point U . Since this is true, $c + d = 90$ and $e + f = 90$. Therefore, the sum of all the angles is 270.

18. **B**

Plug In the Answers, starting with (C). If the total is 55, then the probability would be $\left(\frac{3}{55}\right)\left(\frac{2}{54}\right)$, which does not equal $\frac{3}{55}$. The denominator is too large, so try (B). If the total is 11, then the probability is $\left(\frac{3}{11}\right)\left(\frac{2}{10}\right)$, which reduces to $\frac{3}{55}$.

19. **D**

Use the Group formula: Total = Group₁ + Group₂ – Both + Neither. In this problem, the total is 2,400. The question also states that 1,200 students (half of the total) take calculus, so that is Group₁; one-third of that group (400) take both calculus and English. Because every student takes calculus or English or both, the Neither group is zero. Solve for the number of students who take English by plugging these numbers into the group formula: $2400 = 1200 + \text{Group}_2 - 400$. The number of students who take English is 1,600, or (D).

20. **A**

To solve this expression you need to break apart the factorial of 13 to the common prime number in the denominator, in this case the number 2. $13!$ can be expressed as $13 \times 12 \times 11 \times 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$. When you break apart this factorial into its prime numbers, you are left with $13 \times 11 \times 7 \times 5^2 \times 3^5 \times 2^{10}$. For a fraction to result in an integer, the denominator of the fraction must share at least one prime factor with the numerator. The greatest number of 2s that can be found in the prime factorization of $13!$ is 10, so $x \leq 10$. Eliminate (B), (C), and (E). Now for the tricky part! Any nonzero number raised to the power 0 is 1. Since the result when any integer is divided by 1 is also an integer, 0 must be included in the range of possible x values. The answer is (A).

Section 4

1. **prowess and maladroit**

The first blank has a strong clue, so begin there. The blank is describing the *professor...as a teacher* and gives further insight that *she shows more...teaching skills* than her

colleagues. The transition word *and* indicates that there is consistency between her description as a *noteworthy intellect* and her skills as a teacher. Therefore, a good word for the first blank is “skills.” Choice (A), *prowess*, is a good match for “skills” so keep (A). Choice (B), *profligacy*, means reckless extravagance and (C), *orthodoxies*, means beliefs. Eliminate (B) and (C). The second blank is describing the professor’s *colleagues...teaching skills*. The sentence gives further insight by stating that the professor shows more skills than her colleagues. Therefore, a good word for the blank is “unskilled” or “not good.” Choice (D), *spurious*, means fake which is not a match for “unskilled” so eliminate (D). Choice (E), *maladroit*, is a good match for the blank, so keep (E). Choice (F), *eclectic*, means from different sources, so eliminate (F). The correct answer is (A) and (E).

2. **irresponsible, forestall, and avoidable**

The keys to the first blank are the clues “given their responsibilities as democratically elected officials” and “neglect to do everything they could.” These clues indicate that the first blank should have a negative connotation; a word that means something as simple as *bad* would eliminate *thoughtful* and *intuitive*, leaving *irresponsible*. Blanks (ii) and (iii) build on the idea set up in the first half of the sentence. The second blank describes the action that would be bad, so use something that means solve. *Sustain* and *cultivate* are the opposites of what’s needed for the second blank, leaving *forestall*. The last blank describes the type of problem, and entirely suggests it’s a solvable problem. *Avoidable* is close, and it helps the whole sentence make sense.

3. **erudite**

Despite is a transition word that implies a contrast between the student's actual behavior when presenting her thesis and her mentor's advice. The student resorted to using slang, language that is informal and unscholarly. Therefore, the word in the blank must mean *formal* or *scholarly*. The only word that fits that description is *erudite*, which is the best choice. The other answer choices can be used to describe speech, but none of these words contrast the mentor's advice with the student's use of slang.

4. **augmented, overwhelmed, and delicate**

Start with the second blank. The clue *pungent* tells you this onion did something bad to the delicious stew. *Exaggerated* and *satiated* are positive; *overwhelmed* is the only fit. The transition *otherwise* tells you to change direction from the third blank's clue of *pungent*. Look for a word that means *subtle* or *soft*. Only *delicate* fits. For the first blank, the clue is that Steve's stinky onion hurt the delicate stew. The transition *although* tells you to change direction. So, this addition of the sweet potato was good. Only *augmented* fits.

5. **banal, an adept, and sublime**

The first clue is *its focus on such everyday objects as flowers or fruits apparently uninspired*, so the first blank has to mean something such as “uninspired.” *Banal*, which means predictable, matches this. For the second blank, the painter must pay *careful attention*, so the second blank must mean “careful” or “talented,” which matches *an adept*. Since the painting is *exemplary*, the third blank must be *sublime*.

6. **comely and prepossessing**

The first blank describes Viktor Yuschenko's face. The clue is that his face was *transformed into a monstrous mask by dioxin poisoning* and the transition word *once* tells us an appropriate word for the blank would be the opposite of monstrous; something like attractive would work nicely. *Quiescent* means calm, and *fatuous* means foolish, so those words don't work. *Comely*, which means attractive, is the only word that works. The second blank is describing Yulia Tymoshenko. Both the transition phrase *a study in contrasts* and the clue about *fashion magazines* suggest that a word that means beautiful is appropriate. Though it might not sound like it, *prepossessing* does, in fact, mean beautiful. *Felicitous* means well-expressed, and *decorous* means full of propriety, so although they are both positive words, they aren't as fitting here as the credited response is.

7. **D**

According to the first sentence, her work can be viewed three different ways. The rest of the passage describes those ways: as the work of a modern poet, of a woman, and of a Native American. Choice (A) is too vague, and the passage doesn't so much describe her work as how it should be viewed. Choices (B) and (C) are too narrow and don't describe the overall purpose. Choice (E) doesn't match the passage.

8. **B**

In the second paragraph the author states, "Mr. Wilson's praise gives the impression that Feather's readership is limited to her own culture—an impression which hints that Mr. Wilson is himself measuring her by only one criterion," which best fits (B). Choices (A) and (E) contradict the passage and are too broad and extreme.

Choice (C) contradicts the passage, and (D) is not supported.

9. E

The second sentence of the passage claims, “We could consider her poems as the product of a twentieth-century artist in the tradition of James Joyce, T.S. Eliot, and Wallace Stevens.” Thus, the author mentions Joyce, Eliot, and Stevens in order to describe one context—twentieth-century poetry—in which Feather’s work can be analyzed. Eliminate (A) because the author doesn’t compare Feather’s political messages to those of these authors. Eliminate (B) because the author doesn’t use these authors to discuss differences between male and female poets. Eliminate (C) because the author doesn’t contrast Feather’s themes with those of these authors. Although Joyce, Eliot, and Stevens were, like Feather, twentieth-century artists, the passage doesn’t say that they shared sensibilities, which eliminates (D). Choice (E) is the answer.

10. C

Only (C) provides a clue to the meaning of *urbane* as used here: the *urbane* buyer is contrasted with the “unsuspecting or naïve buyer,” so it must mean “not unsuspecting” or “not naïve.” Choice (A) tantalizingly dangles the word “rural” before our eyes, trying to take advantage of that word’s well-known association with the word *urban*. *Urbane*, though, means *sophisticated*. Moreover, if (A) were accepted, the strangely illogical proposition that city-dwellers knew best how to buy animals at market would have to be accepted as well. Choice (B), thankfully, presents no such difficulties of interpretation and appears in the definition of the obscure

expression itself, not in the comparison between unsuspecting and urbane.

11. **It relates to the common Renaissance practice of securing suckling pigs for transport to market in a poke, or drawstring bag.**

In this sentence the author defines the term “poke” as a drawstring bag. This is the only instance in which the author gives a definition for a word that the reader may not be familiar with because the word “poke” is not a common term used to describe a drawstring bag.

12. **propriety and decorum**

The clue is “was such a bad-mannered child.” Time acts as a change-of-direction transition (“as an adult”) that indicates the blank should mean something like well-mannered. Only *propriety* and *decorum* mean well-mannered. *Diffidence*, *reticence*, and *brashness* are all traits that would be considered bad-mannered.

Friendliness does not necessarily mean well-mannered.

13. **whimsical and capricious**

The blank describes how politicians act. The clue is “acting according to a deliberate plan.” The change-of-direction transition *however* tells you that they appear not to have a plan. Words that mean unplanned or random should be in the blank. Both *whimsical* and *capricious* fit this meaning. *Conventional* and *conformist* have the opposite meaning. The other two words are unrelated to the blank.

14. **irksome and onerous**

The transition *even more* tells you to stay in the same direction as the clue. “Forced to take an alternate road,”

“two-hour detour,” and “arduous trip” tell you that the journey was difficult. Put a word that means hard or tiring in the blank. Only *irksome* and *onerous* fit this meaning. *Facile* and *glib* describe something easy, and *implacable* and *immutable* describe something that doesn’t change.

15. **adventurous** and **doughty**

The transition *especially* tells you to stay in the same direction as the clue “willingness to reject prevailing feminine roles and to travel to foreign lands alone.” Thus, she has a bold spirit. Only *adventurous* and *doughty* mean bold. Although she is traveling alone, there is nothing to support that she is lonely, as *forlorn* and *desolate* suggest. *Magnanimous* and *bellicose* do not fit.

16. **A**

The argument concludes that the substitution of microfiber clothes for those made from natural fabrics is not financially sound. The premise is that microfiber clothes last as long as natural fabric clothes but are three times as expensive to produce. The argument assumes that there are no other factors that need to be considered to evaluate the cost effectiveness of switching. Choice (A) points out another factor that would affect the overall costs and so weakens the argument. Choice (B) helps to explain why the microfiber synthetic shirt is more expensive to produce than a natural fiber shirt, but it does not weaken the argument. In (C), comparing natural fiber shirts and other fiber garments is not relevant. Choice (D) strengthens the argument. Choice (E), by pointing out additional costs associated with microfibers, also strengthens the argument.

17. **E**

The first paragraph presents the Gandhara-first view that “Greek influence in Gandhara promoted the development of the new style and form of representation of the divine.” The second paragraph provides evidence Gandharan Buddhas shared certain features with Greek art. Choice (E) provides additional information about those similarities and is the best choice. Choices (A) and (C) undermine the idea that Gandharan artists were responding to outside influences. Choice (B) is irrelevant, and (D) provides evidence for outside influences in Mathura.

18.

B

The first sentence says that “images in human form emerged around the first century A.D.,” and the middle of the first paragraph states that “earlier Buddhist art was largely aniconic.” You can conclude from these statements that the earliest Buddhist art didn’t usually depict the Buddha in human form. Eliminate (A); although human representations first appeared in these regions, the passage doesn’t say that the first Buddhist art appeared in the same places. The passage doesn’t support (C), (D), and (E).

19.

B and C

For (A), the passage says only that the age of these fossils was “far too recent for humans to have evolved” from them. This does not give an age for the fossils. The last sentence says that “the concept of ‘missing link’ has changed dramatically,” which answers the question in (B). The last sentence also answers the question in (C) because it says, “the value of his discovery and the debate it generated is unquestionable.”

20. **Although the concept of “missing link” has changed dramatically and a recent analysis showed Dubois’s fossils to be far too recent for humans to have evolved from this “missing link,” the value of his discovery and the debate it generated is unquestionable.**

In the last sentence, the author states that the value of Dubois’s fossils is “unquestionable.” This statement represents the author’s conclusion.

Section 5

1. **B**

Draw the figure. You have a square with a circle inside of it that has a radius of 6. Therefore, the length of one side of the square is 12. Quantity A asks for the area of the largest triangle that can be drawn inside the square. The largest triangle cuts the square in half diagonally (subsequently creating a 45:45:90 triangle) and has a height and base of length 12. So the area of the triangle is $\frac{1}{2} (12)(12) = 72$.

Quantity B is asking for the area of the circle with center R . So the area of the circle is $6^2\pi$, or 36π . π is approximately 3, so you know that 36 times 3 is greater than 72. Quantity B is greater.

2. **D**

There are a lot of variables in this problem, so start thinking about Plugging In. The variable a has to be the same for each equation. You cannot pick just any number, however, because you must satisfy the equations. When you feel stuck on a problem, start looking at the numbers; remember the math will always work out nicely.

Examining the two equations, you realize that $158 \times 4 = 632$, so these two numbers are related. So the easiest number to Plug In for a is 632. Now you know that $xs = 1$, and $ys = 4$. Since the variable s is the same in both equations, they cancel each other out and you are left with $x = 1$ and $y = 4$. Eliminate (A) and (C). Next, try a FROZEN number such as $a = -632$. In this case, $xs = -1$ and $ys = -4$ or $x = -1$ and $y = -4$. Eliminate (B). The correct answer is (D).

3. **C**

$135 \div 7 = 19$, remainder 2. $135 \div 19 = 7$, remainder 2. Both Quantity A and Quantity B equal 2.

4. **D**

Plug In. Let $a = 8$ and $b = 4$. Quantity A can be greater than Quantity B, so eliminate (B) and (C). Now let $a = b = 1$. Quantity A can be equal to Quantity B, so eliminate (A).

5. **B**

Plug In numbers for a , b , and c . If $a = -2$, $b = 3$, and $c = 4$, then $ac = -8$. Quantity B is greater; eliminate (A) and (C). If $a = 2$, $b = -3$, and $c = -4$, then ac is still negative. Quickly consider different numbers, but realize that Quantity A will always be negative.

6. **D**

If $|x| = 6$, then $x = 6$, or $x = -6$. If $x = 6$, then $y = 6 + 4 = 10$.

The quantities are equal, so you can eliminate (A) and (B).

If $x = -6$, then $y = -6 + 4 = -2$, and Quantity B is greater.

Eliminate (C), and select (D).

7. **B**

Plug In for the radius, n , and solve for x . Let's make $n = 3$:

The area of the base of the cylinder is now 9π , and the circumference of the base is 6π . The ribbon itself is a rectangle, and we now know both its area, which is the same as the area of the base, and its length, which is the same as the circumference of the base. Now we can solve for x , which is the other side of the rectangle: $6\pi x = 9\pi$, so $x = \frac{9\pi}{6\pi}$, or $\frac{3}{2}$. Our value for n is greater than our value for x , so Quantity B is greater.

8. **C**

Remember that median is the number that ends up in the middle of the list when you rewrite the list in numerical order. Find x : the even numbers are 2, 2, 6, 8. Because 2 and 6 are in the middle, find their mean: $\frac{2+6}{2} = 4$. So, $x = 4$.

4. Find y : the prime numbers are 2, 2, 3, 5, 7, 13.

Remember: 1 is not prime. Because 3 and 5 are in the middle, find their mean: $\frac{3+5}{2} = 4$. So, $y = 4$. Find z : the least is 1, and the greatest is 15. The median of 1 and 15 is $\frac{1+15}{2} = 8$. So, $z = 8$. For Quantity A, find the median of 2(4), 4, and 8. So, the median of 4, 8, 8 is 8. Quantity B is also 8.

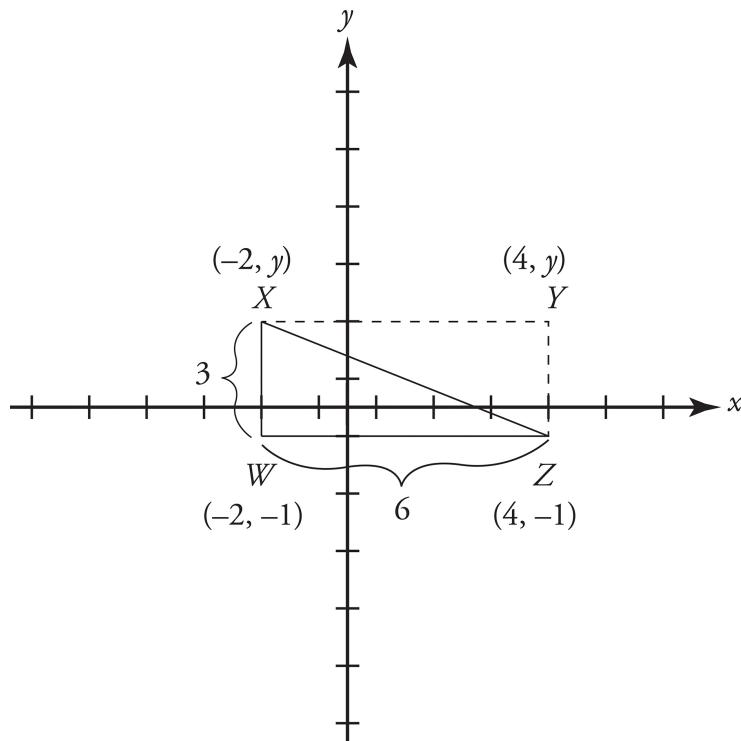
9. 1,625

Set up a proportion: $\frac{1 \text{ hour}}{500 \text{ gallons}} = \frac{3.25 \text{ hours}}{x \text{ gallons}}$. Cross multiply to find that $x = 500 \times 3.25 = 1,625$ gallons.

10. B

Plug In the Answers, starting with the middle choice. If 120 dogs were sold in March, then 60 cats were sold that month. In April, 240 dogs were sold, along with 180 cats. The total number of dogs and cats sold during those two months is 600, which is too large, so eliminate (C), (D), and (E). Try (B). If there were 100 dogs sold in March, then 50 cats were sold; in April, 200 dogs were sold along with 150 cats. The correct answer is (B) because $100 + 50 + 200 + 150 = 500$.

11. C



Notice that the length of WZ is $4 - (-2) = 6$. If the area is $18 = 6 \times w$, then w is equal to 3. Now you have a right triangle with legs of 3 and 6. Use the Pythagorean Theorem: $3^2 + 6^2 = c^2$, or $9 + 36 = c^2$. So, $c = \sqrt{45} = \sqrt{9 \times 5} = 3\sqrt{5}$.

12. **E**

Order matters in this problem, so remember you do not divide; you multiply! For the first integer, you have 5 options. For the second, you have 4. For the third, you have 3; $5 \times 4 \times 3$ is 60, which is (E).

13. **D**

The percent increase in the CEO's pay was $\frac{\$50 - \$5}{5} \times 100\% = 900$ percent. The percent decrease in the factory workers' pay was $\frac{\$20 - \$10}{20} \times 100\% = 50$ percent. To find what percent greater 900 percent is than 50 percent, do the following: $\frac{900\% - 50\%}{50\%} \times 100\% = 1,700$ percent, or (D).

14. **D**

Divide the \$9.4 million in private donations received by child safety organizations in September 1989 by the 38 organizations operating at the time. The amount is approximately \$250,000.

15. **C**

From the line graph, you see that homeless aid groups took in about \$300 million in private donations, and animal rights groups about \$225 million. The ratio of \$300 million to \$225 million is 4 to 3.

16. **E**

Identify the markers for September 1989 and October 1989 on the chart. The question is asking about the least percent increase between these two data points. So, begin by evaluating the data points. All of the differences between the data points for these two months are very similar; they all seem to have a difference of approximately 0.5. Because 0.5 is a lesser percent of a greater number, the least percent increase corresponds to the data point with the greatest numbers. Therefore, the correct answer is (E), *child safety*. Alternatively, find the

percent increase for each of the answer choices by dividing the difference between the two points by the original, which in this case is the number for September 1989. The least percent increase is still (E), *child safety*, which is the correct answer.

17. **D**

This is a pattern problem. The pattern has five digits: 06539. Divide 34 by 5, which gives you a remainder of 4. So the 34th digit will be the fourth in the pattern, which is 3.

18. $\frac{48}{7}$

First, solve for x using the equation $\frac{7y}{2x} = 7$. Cross multiply to find that $7y = 14x$. Dividing both sides by 14 yields $\frac{1}{2}y =$

x . Substitute this expression into the first equation to get

$3(\frac{1}{2}y) + 2y = 24$. Combine the like terms to get $\frac{7}{2}y = 24$; multiply both sides by $\frac{2}{7}$ to find $y = \frac{48}{7}$.

19. **C**

Plug In the Answers, which are the possible values of x . Start with (C). Find the average of 6, 8, 10, and 23, which is 11.75, which is in the correct range. Eliminate (A) and (B) because the question asks for the greatest possible value of x . Next, try (D). The average of 6, 8, 10, and 28 is 13, which lies outside of the range. The correct answer is (C).

20. A

Plug In! To find the area of quadrilateral $ABDE$, find the area of right ΔABC and subtract the area of right ΔEDC .

Make $a = 4$ and $b = 2$. Because $AB = BC$, you know that this triangle has a height and base that are both equal to 4.

The area of ABC is $4 \times 4 \times \frac{1}{2} = 8$. The area of EDC is 2×2

$\times \frac{1}{2} = 2$. The area of $ABDE$ is $8 - 2 = 6$. Plug In for a and b

and find that (A) is the only one that works. Alternatively, to find the area of quadrilateral $ABDE$, find the area of

right ΔABC and subtract the area of right ΔEDC . Both the base and the height of ΔABC are a , so the area equals $\frac{1}{2} \times$

$a \times a$, or $\frac{a^2}{2}$. Both the base and the height of ΔEDC are b ,

so the area equals $\frac{1}{2} \times b \times b$, or $\frac{b^2}{2}$. Therefore, the area of

quadrilateral $ABDE$ is $\frac{a^2}{2} - \frac{b^2}{2}$.

Section 6

1. **original** and **outlandish**

Try working with the second blank first. The clues are that the fashions were “considered daring” and then “imitated.” Starting with the second blank, the sentence suggests that the fashions have changed from what they once were—in other words, daring. *Outlandish* is a good synonym for

daring and it makes sense that, in the first blank, the fashions were *original* and then lost their impact because of excess imitation.

2. **diverge**

Take note of the time transition *at one time inseparable... now*, which indicates that the combined roles in Middle Eastern music are now not inseparable. You need a word that means divide or separate. *Divulge* starts with the proper root, but its meaning is way off. Meanwhile, neither *retreat* nor *retrench* means divide, while *fuse* is the opposite of what you want. *Diverge* is the correct answer.

3. **rebuked, perfidy, and expiate**

Start with the second blank, which must mean something close to an act of “treachery.” *Perfidy* means this. Since his contemporaries believed Kazan had committed treachery, they would have “harshly criticized” him, so the first blank means *rebuked*. For the last blank, he was able to achieve *atonement*, which is what *expiate* means.

4. **soporific**

The sentence requires you to figure out the effect that “tranquilizers usually have,” and this is provided by the clue in the later part of the sentence, when you read that the “abuse of these drugs results in a failure to induce the much-desired sleep.” You can infer that the usual effect of tranquilizers is to produce sleep. *Soporific*, which means sleep-inducing, is the correct answer choice. While *sedulous* might remind you of “sedative,” it actually means hard-working.

5. **preternatural, preclude, and consonant**

The clue for the first blank is “are rejected by modern science in its attempts to find secular insights.” Otherworldly interpretations contrast the secular, and the best choice for the first blank is *preternatural*. There would be a paradox only if scientists could hold non-secular beliefs. Therefore, a good word for the second blank is *prevent*, and a good phrase for the last blank would be *in agreement*. *Preclude* is synonymous with *prevent*, and *consonant* is synonymous with *in agreement*, making these the correct answers.

6. conformity and eccentricity

Try working with the second blank first. The clue is “none of the family members were fearful...of appearing or acting differently from other people.” Therefore, find a word for the second blank that means uniqueness.

Eccentricity fits the bill. Considering the clue, “The Johnson’s were not known for their,” the two blanks must be opposites. Eliminate *candor* and *vulgarity* based on the clue and the word choice for the second blank, and choose *conformity*.

7. E

In the last paragraph, the author discusses the difficulties inherent in measuring intergalactic distances. He notes that scientists use a standard candle in combination with the inverse square law to measure those distances.

8. C

The passage states in the third paragraph that brighter objects are closer than dim objects, so eliminate (A). The passage never specifies what scientists know about the age of astronomical objects, so eliminate (B). The first paragraph says that, according to Hubble’s law, “objects

farther away from Earth are receding faster than those closer.” This means that the farther object will travel faster, so (C) is correct.

9. **B**

According to the last line in the paragraph, “By the inverse square law, galaxy B is ten times farther away than galaxy A, assuming, of course, that distance is the only factor affecting brightness.” Therefore, if interstellar dust affects the brightness of an object, the brightness of the object is affected, and the distance scientists measure may be inaccurate.

10. **C**

According to the passage, “By the inverse square law, galaxy B is ten times farther away than galaxy A, assuming, of course, that distance is the only factor affecting brightness.” Therefore, assuming that all other factors affecting brightness can be known, we can conclude that the brighter of the supernovas will be closer to Earth.

11. **B**

“Prozac lag” is a phenomenon for which there is currently no explanation, but neurogenesis may offer a solution. Choice (A) contradicts this. The passage offers “Prozac lag” as supporting evidence of a new theory, not disproving an old one, as (C) suggests, or disproving a new one, as (D) states. Choice (E) goes too far by discussing “unforeseen effects.” Choice (B) is the best option.

12. **However, patients suffering from depression only begin to experience mood elevation weeks after beginning treatment.**

The second paragraph has five sentences, so this question has five answer choices. For an “unexpected observation,” a good place to start would be to check the transition words. The fourth sentence starts with the word “however.” While the effects should occur immediately, these don’t occur until weeks after starting treatment. The answer is the fourth sentence.

13. edifying and didactic

The blank describes Socrates’s conversations. The clue is “Socrates’s teachings have survived and continue to enlighten seekers of wisdom,” so the blank must mean instructional. *Edifying* and *didactic* are the closest in meaning. *Tedious*, *grating*, *inspiring*, and *rousing* could all be used to describe Socrates’s conversations, but they do not match the clue.

14. satiate and allay

You would expect “the colossal meal” to fill someone up, but the sentence says that “failed to...her voracious appetite.” Thus, she was not full, and the meal failed to satisfy. *Satiate* and *allay* are the best match. *Cadge* and *mendicate* mean the meal begged her hunger. *Exacerbate* and *provoke* go in the wrong direction.

15. iridescent and pavonine

The clue for this sentence is “the lovely rainbows they produce,” which suggests that the blank should be filled by a word meaning colorful. Both *iridescent* and *pavonine* mean exactly that. Even if you don’t agree that the blank necessarily refers to rainbows of color, the missing word does have to agree with *beautiful* due to the transition word *and*, and none of the other four options does: *anodyne* means eliminating physical pain, *monocoque*

means constructed in one piece, *parietal* mean college-related, and *saturnine* means gloomy.

16. **cauterized and inured**

The clue for this sentence is *callous*, so the blank must mean “used to,” or “didn’t notice.” Choices (B), *cauterized*, and (E), *inured*, mean this. Choice (F) is incorrect because he didn’t notice the violence more, but rather noticed it less.

17. **D**

The conclusion of the argument is that the old formula for Megapower contained natural kiwi extract, while the new formula does not. The evidence is that Tasmania suffered a decrease in its kiwi exports. The assumption is that Megapower is not getting kiwi fruit from Tasmania.

Choice (D) strengthens the argument by pointing out that kiwi imports have fallen in the country that produces Megapower, which would reinforce that assumption that the manufacturer is not getting kiwis from Tasmania.

Choice (A) would weaken the argument by providing a potential alternate source for kiwi fruit. Choice (C) weakens the argument by providing evidence that the manufacturer of Megapower could be getting kiwi fruit from another source. Choices (B) and (E) are not relevant to the conclusion.

18. **C**

While the word *promulgated* can take on the meanings given in (A), (B), or (C), within the context of the sentence it is clear that Courbet is taking a stand on what he believes art should be. Therefore, (C) is closest to the correct meaning.

19. **The argument has been made that the painting struck a blow for the independence of the artist, and that since Courbet's work, artists have felt freed from the societal demands placed upon their work.**

While the rest of the passage enumerates Courbet's ideas on painting, only this sentence points to the effect that Courbet's work may have had on other artists when it states that "since Courbet's work artists have felt freed from the societal demands placed on their work."

20. **A**

According to the passage, Courbet broke with convention by "striving to do something strikingly original." Only (A) provides that sense of defying a convention to do something original.

Chapter 20

Practice Test 2

[*Click here*](#) to download a PDF of Practice Test 2.

SECTION 1: ISSUE TOPIC

Directions:

You will be given a brief quotation that states or implies an issue of general interest and specific instructions on how to respond to that issue. You will have 30 minutes to plan and compose a response in which you develop a position on the issue according to the specific instructions. A response to any other issue will receive a score of zero.

“Studying foodways—what foods people eat and how they produce, acquire, prepare, and consume them—is the best way to gain deep understanding of a culture.”

Write an essay in which you take a position on the statement above. In developing and supporting your position, you should consider ways in which the statement might or might not hold true.

SECTION 2: ARGUMENT TOPIC

Directions:

You will be given a short passage that presents an argument, or an argument to be completed, and specific instructions on how to respond to that passage. You will have 30 minutes to plan and compose a response in which you analyze the passage according to the specific instructions. A response to any other argument will receive a score of zero.

Note that you are NOT being asked to present your own views on the subject. Make sure that you respond to the specific instructions and support your analysis with relevant reasons and/or examples.

Fossil evidence indicates that the blompus—an extremely large, carnivorous land mammal—inhabited the continent of Pentagoria for tens of thousands of years until its sudden decline and ultimate extinction about twelve thousand years ago. Scientists have determined that the extinction coincided with a period of significant climate change and with the arrival of the first humans. Some scholars theorize that the climate change so altered the distribution of plants and animals in the environment that the food chain upon which the blompus depended was irretrievably disrupted. Others contend that predation by humans is the more plausible explanation for the rapid population decline.

Write a response in which you discuss specific evidence that could be used to decide between the proposed explanations above.

SECTION 3: VERBAL REASONING

For questions 1 through 6, select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.

1 of 20

The (i)_____ with which a statement is conveyed is frequently more important to the listener in determining the intended meaning than the actual words (ii)_____. For example, a compliment, when delivered sarcastically, will be perceived by the receiver as fairly insulting.

Blank (i)	Blank (ii)
inflection	implied
pitch	repudiated
accuracy	utilized

2 of 20

Though a film studio produces works that are (i)_____ and artistic, its priorities often dictate that creativity be (ii)_____ to a secondary position since the creative process can (iii)_____ the organization and hierarchy necessary to running a large company.

Blank (i)	Blank (ii)	Blank (iii)
expressive	compared	respond to
tedious	uplifted	conflict with
tiresome	relegated	coexist with

3 of 20

Science and religion each have core tenets that are considered _____; however, because some scientific tenets are in conflict with some religious ones, these tenets cannot all be correct.

historic
axiomatic
disputable
ubiquitous
empirical

4 of 20

Although most preventative medical ointments commonly in use would have (i)_____ an infection, the particular one Helen applied to her sores actually, much to her dismay, (ii)_____ her (iii)_____.

Blank (i)

Blank (ii)

Blank (iii)

surrendered to	contributed to	medicine
exacerbated	detracted from	salve
staved off	dispensed with	affliction

5 of 20

A single (i)_____ remark can easily ruin the career of a politician, so most are trained to avoid such offhand remarks and instead stick to prepared talking points. This training can result in a lack of (ii)_____, however, and elicit merely (iii)_____, lukewarm responses from crowds.

Blank (i)

Blank (ii)

Blank (iii)

--	--	--

elated	spontaneity	ardent
glib	equanimity	tepid
pedantic	rigidity	morose

6 of 20

Oscar Wilde's *The Importance of Being Earnest* satirizes the _____ nature of upper crust British society; its characters take trivial concerns seriously while thoughtlessly dismissing important ones.

maladaptive
insincere
unusual
insignificant
shallow

For each of Questions 7 to 12, select one answer choice unless otherwise instructed.

Questions 7 through 10 are based on the following reading passage.

In 1798, economist Thomas Robert Malthus stated in his "Essay on the Principle of Population" that "population increases in a geometric ratio, while the means of subsistence increases in an arithmetic ratio." However, Malthus's dire prediction of a precipitous decline in the world's population has not come to pass. The miscalculations in what has come to be known as the Malthus Doctrine are partly due to Malthus's inability to foresee the innovations that allowed vast increases in worldwide wheat production.

In the late nineteenth century, the invention of the tractor staved off a Malthusian disaster. While the first tractors were not particularly powerful, the replacement of animals by machinery meant that land that had been devoted to hay and oats could now be reclaimed for growth of crops for human consumption. Nevertheless, the Malthusian limit might still have been reached if crop yield had not been increased.

A natural way to increase crop yield is to supply the soil with additional nitrogen. In 1909, chemist Fritz Haber succeeded in combining nitrogen and hydrogen to make ammonia, the white powder version of which, when added to the soil, improves wheat production. Haber nitrogen, however, was not widely used until later in the twentieth century, largely due to farmers' resistance to spreading an unnatural substance on their crops. Haber's invention had a further drawback: If applied in incorrect quantities, the wheat crop would grow taller and thicker, eventually toppling over and rotting.

Interestingly, in the late twentieth century the discovery of genetic engineering, which provides a means of increasing rice and maize production, met with equal resistance, this time from the environmental movement. Even without direct genetic engineering, it is likely that science will discover new methods to improve agricultural production.

7 of 20

According to the passage, which of the following is true about Haber nitrogen?

- Haber nitrogen is more effective at increasing the yield of wheat crops than that of maize or oat crops.

- Undesired effects can result from the application of surplus quantities of Haber nitrogen.
- Haber nitrogen was the first non-naturally occurring substance to be applied to crops as fertilizer.
- Haber nitrogen may not be effective if applied at an improper time in wheat's growth cycle.
- Farmers were quick to adopt Haber nitrogen because it made their crops grow taller and thicker.

8 of 20

The passage implies all of the following EXCEPT

- world food production has kept pace with world population growth
- technological innovation is one factor that allowed for an increase in crop production
- farmers are not the only group that has opposed artificial efforts to increase crop yield.
- the Malthusian limit might well have been reached if new methods to increase crop production had not been found
- a Malthusian disaster would have been ensured if it were not for the invention of genetic engineering

9 of 20

Which of the following, if true, would best represent Malthus' contention in the first paragraph?

- By 2040 the world's population increases marginally, and food production keeps pace with demand.
- By 2040 the world's population decreases marginally, and food production outstrips demand.
- By 2040 the world's population remains unchanged, and food production declines slightly.

- By 2040 the world's population has significantly increased, and food production has increased slightly.
- By 2040 the world's population has significantly decreased, and food production has decreased slightly.

10 of 20

Which of the following most nearly means the word precipitous, as used in context?

- anticipated
- deliberate
- gradual
- risky
- sharp

Questions 11 through 12 are based on the following reading passage.

The dearth of natural resources on the Australian continent is a problem with which government officials there have long struggled. As long distance travel has become less of an obstacle, the tourism industry has become ever more important to the national economy. Tourism represents more than 10 percent of national export earnings annually, and in less developed regions such as the Western Territory, the percentage is much higher.

Unfortunately, this otherwise rosy prospect has one significant cloud on the horizon. In recent years, there has been a move towards returning some of the land to the Aboriginal people. As Western society and culture have flourished on Australian soil, tribal people have been forced ever farther inland in an attempt to maintain their traditional ways of living, a desire that the government has striven to respect.

One of the central beliefs of the Aboriginal religion is that certain natural formations have spiritual significance and must be treated accordingly. Strict guidelines determine who may visit these sites and at what times. Unfortunately, many of these sites are the very natural wonders tourists flock to see. If non-Aboriginal people are forbidden to visit these natural wonders, many may choose not to vacation in a region that sorely needs the income generated by tourism.

The Australian government has dealt with this dilemma thus far by trying to support both sides. The Aboriginal council is still trying to put an end to such use of certain sites, however, and it remains to be seen whether respect for tradition or economic desires will ultimately triumph.

11 of 20

In the context of the passage, which of the following most closely matches the meaning of the phrase “otherwise rosy prospect has one significant cloud on the horizon”?

- A colorful sunset is marred by a dark storm cloud.
- A generally promising future has a potential problem.
- The view is beautiful but partially blocked.
- The future of the Aboriginal people is doubtful.
- Although the situation looks good, in reality it is hopeless.

12 of 20

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

According to the passage, which of the following is a cause of the current dispute between the Aborigines and the Australian government?

- economic hardships in certain regions of the country
- increasing dominance by European norms and lifestyles
- limited natural resources in most of Australia

For questions 13 through 16, select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

13 of 20

George was a mercurial character; one moment he was optimistic about his prospects, and the next he was _____.

- immoral
- hopeful
- witty
- morose
- dour
- buoyant

14 of 20

Growing up in a wealthy suburb, she felt quite the _____ as she began her first job as a llama caretaker on a rural farm.

- tyro
- concierge
- agronomist
- cultivator
- neophyte
- curator

15 of 20

William Shakespeare's *Macbeth* was based upon a highly _____ version of events that the playwright wrought from Raphael Holinshed's *Chronicles of England, Scotland, and Ireland*; King Duncan's death at the hand of Macbeth comprises the play's only historical truth.

- anachronistic
- effusive
- embellished
- prosaic
- serpentine
- colored

16 of 20

While comic book artists such as Neal Adams demonstrated a more thorough mastery of human anatomy than did the generation that preceded them, some readers wondered whether the superheroes they drew were really supposed to be so _____ that every detail of their musculatures would be visible through their clothing.

- thewy
- sinewy
- superfluous
- pneumatic
- flocculent
- atrophied

For each of Questions 17 to 20, select one answer choice unless otherwise instructed.

Questions 17 through 18 are based on the following reading passage.

One of the most curious structures in cellular biology is the telomere, a length of repeated bases located at the end of every chromosome that, unlike the rest of the DNA strand, carries no useful genetic information. While the telomere seems on the surface to be nothing more than a useless afterthought of DNA, a closer look proves that it is not only important, but also crucial to the functioning of any organism. Indeed, without this mundane structure, every cell division would be a step into senescence, and the onset of old age would begin at birth.

Scientists have found that during cell division not every base of the DNA strand can be replicated, and many, especially those near the end, are lost. If, instead of telomeres, our chromosomes stored valuable genetic information at the end of the DNA strand, then cell division would cause our cells to lose the ability to code for certain information. In fact, many ailments associated with normal old age begin only after the telomere buffer has been exhausted through years of cell division.

17 of 20

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

Which of the following can reasonably be inferred based on the passage?

- An individual who aged faster than the average person may have had a shorter telomere buffer than the average person.
- Scientists once believed that telomeres served no useful purpose.

- If DNA degradation were absent, then telomeres would be less important to human health.

18 of 20

The passage suggests that if telomere buffers did not exist

- problems associated with aging would begin earlier in life
- people would age so rapidly that almost no one would live past childhood
- cellular senescence would probably be prevented by DNA bases
- chromosomes would lose the ability to store genetic codes
- DNA strands would contain only useful genetic information

Questions 19 through 20 are based on the following reading passage.

Music education in America emerged in the early eighteenth century out of a desire to ensure that church goers could sing the weekly hymns in tune. In 1721, John Tufts, a minister, penned the first textbook for musical education entitled *An Introduction to the Singing of Psalm Tunes*. Tufts's pedagogical technique relied primarily on rote learning, omitting the reading of music until a student's singing abilities had improved.

In the same year that Tufts's publication emerged, Reverend Thomas Walter published *The Ground and Rules of Music Explained*, which, while also focusing on preparing students to sing religious music, took a note-based approach by teaching students the rudiments of note reading from the onset. The "note versus rote" controversy in music education continued well into the mid-nineteenth century. With no curriculum to guide them, singing school teachers focused on either the rote or note method with little consistency.

19 of 20

The author discusses Walter's pedagogical technique in order to

- suggest that rote learning is superior to note learning
- present a contrast with Tufts's educational technique
- argue that rote learning improves a student's singing ability
- show the origin of Tufts's educational techniques
- show that rote learning was inconsistently practiced

20 of 20

Select the sentence in the passage that best describes the endurance of the tension between pedagogical techniques.

SECTION 4: QUANTITATIVE REASONING

For each of Questions 1 to 8, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the four answer choices below each question and fill in the circle to the left of that answer choice.

- (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.

A symbol that appears more than once in a question has the same meaning throughout the question.

1 of 20

Quantity A

$$\frac{98^7}{7^{63}}$$

Quantity B

$$\frac{2^7}{7^{49}}$$

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

2 of 20

5 is r percent of 25.

s is 25 percent of 60.

Quantity A

r

Quantity B

s

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

3 of 20

g and h are positive integers such that the value of g is twice the value of h .

Quantity A

The ratio of g to 1

Quantity B

The ratio of 1 to h

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

4 of 20

Quantity A

The average
(arithmetic mean) of
67, 78, x , and 101

Quantity B

The average
(arithmetic mean) of
66, 79, x , and 102

- Quantity A is greater.

- Quantity B is greater.
- The two quantities are equal.
- The relationship cannot be determined from the information given.

5 of 20

In a certain country, the total weight of recycled newspapers increases annually by 0.79 million tons.

Quantity A

The percent increase
in the weight of
recycled newspapers
in 1989 over 1988

Quantity B

The percent increase
in the weight of
recycled newspapers in
1990 over 1989

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

6 of 20

Quantity A

The total weight of m
peanuts with a weight
of $n + 3$ mg each

Quantity B

The total weight of n
almonds with a weight
of $m + 3$ mg each

- Quantity A is greater.
- Quantity B is greater.
- The two quantities are equal.

- The relationship cannot be determined from the information given.

7 of 20

Quantity A

$$5^{27}(575)$$

Quantity B

$$5^{28}(115)$$

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

8 of 20

Alejandro has a six-sided die with faces numbered 1 through 6. He rolls the die twice.

Quantity A

The probability that he rolls two even numbers

Quantity B

The probability that neither number rolled is a multiple of 3

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

9 of 20

If $4(r - s) = -2$, then what is r , in terms of s ?

$\frac{-s}{2}$

$s - \frac{1}{2}$

$s - \frac{3}{2}$

$s + 2$

$2s$

10 of 20

At Tenderloin Pharmaceuticals, 25 percent of the employees take the subway to work. Among those who ride the subway, 42 percent transfer from one subway line to another during their commutes, and the rest do not transfer. What percent of all employees transfer lines?

11 of 20

$$\frac{\left(a + \frac{b}{c}\right)}{\left(\frac{d}{e}\right)}$$

If the value of the expression above is to be halved by doubling exactly one of a , b , c , d , or e , which should be doubled?

a

b

c

d

e

12 of 20

$$(\sqrt{5} - \sqrt{3})^2 =$$

$2 - 2\sqrt{15}$

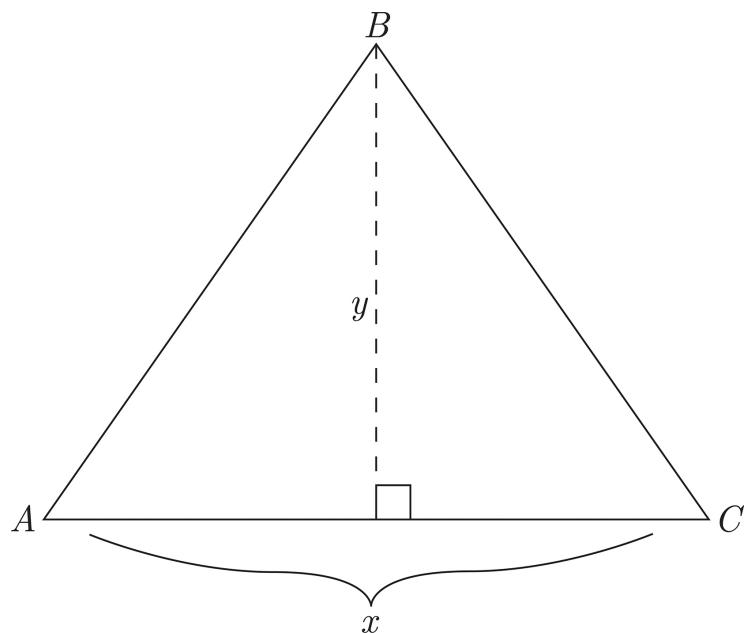
$2 - \sqrt{15}$

$8 - 2\sqrt{15}$

2

$8 - 2\sqrt{5}$

13 of 20



ΔABC has an area of 108 cm^2 . If both x and y are integers, which of the following could be the value of x ?

Indicate all such values.

4

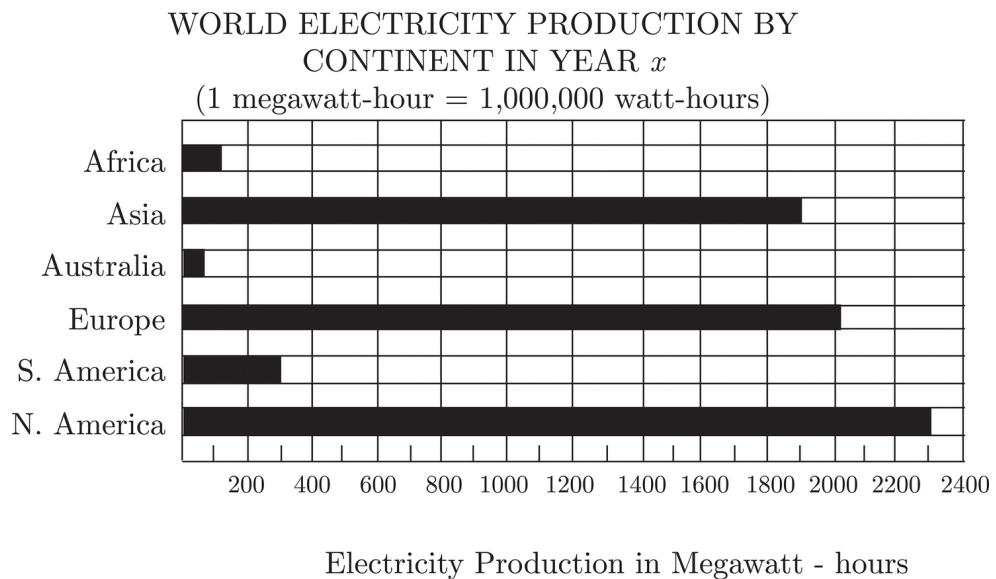
5

6

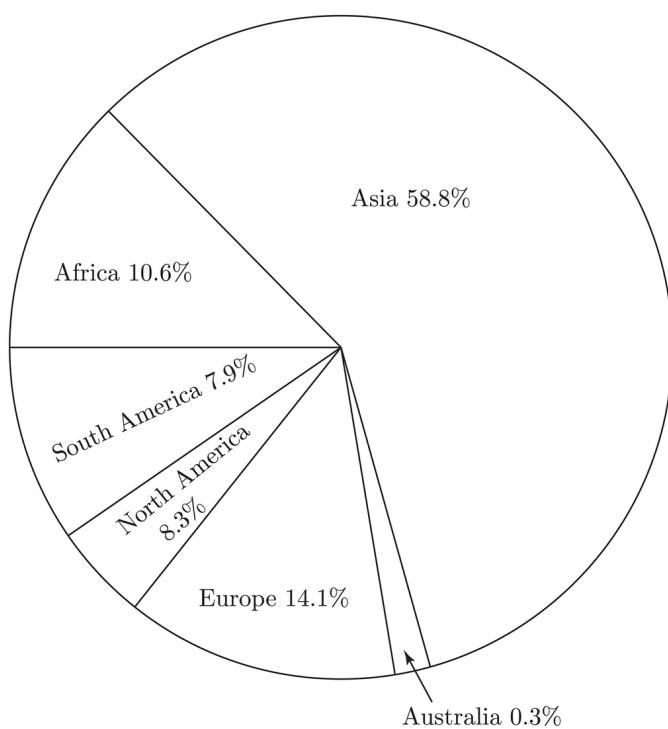
8

9

Questions 14 through 16 refer to the following graphs.



DISTRIBUTION OF WORLD POPULATION
BY CONTINENT IN YEAR x



In Year x , on which other continent did electricity production most closely equal electricity production in Europe?

- Africa
- Asia
- Australia
- South America
- North America

15 of 20

In Year x , for which continent was the ratio of electricity production to percent of population the greatest?

- Africa
- Asia
- South America
- Europe
- North America

16 of 20

In Year x , if South America had a population of approximately 368 million, what was the approximate population, in millions, of Africa?

- 494
- 470
- 274
- 150
- 39

17 of 20

The average (arithmetic mean) weight of 5 crates is 250 pounds. The 2 lightest crates weigh between 200 and 205 pounds each, inclusive, and the 2 heaviest crates weigh between 300 and 310 pounds each, inclusive. If the weight of the fifth crate is x pounds, then x is expressed by which of the following?

- $220 \leq x \leq 250$
- $230 \leq x \leq 260$
- $240 \leq x \leq 270$
- $250 \leq x \leq 270$
- $260 \leq x \leq 280$

18 of 20

In a certain sequence, s_1, s_2, \dots, s_x if $s_1 = 2, s_2 = 2, s_3 = 2$, and for $x \geq 4, s_x = 2s_{x-1} + s_{x-2}$, what is the value of s_6 ?

- 30
- 34
- 37
- 38
- 40

19 of 20

Y is a point on line segment XZ such that $XY = \frac{1}{2}XZ$. If the

length of YZ is $4a + 6$, and the length of XZ is 68, then $a =$

20 of 20

Talk show host Ralph Burke has exactly one guest on his show each day, and Burke's show airs every Monday through Friday. Burke always schedules politicians on Mondays and

Wednesdays, actors on Tuesdays and athletes on Thursdays, but can have a guest of any one of these three kinds on Friday. No guest appears more than once per week on Burke's show. If Burke has five politicians, three actors and six athletes he could invite, and if no politician is also an actor or an athlete and no actor is also an athlete, how many different schedules of guests from Monday to Friday could Burke create?

- 30
- 1,200
- 3,600
- 4,500
- 6,300

SECTION 5: VERBAL REASONING

For questions 1 through 6, select one entry for each blank from the corresponding column of choices. Fill all blanks in the way that best completes the text.

1 of 20

Despite what _____ philosophies of child-rearing suggest, there is no imperative that the day-to-day action of raising a child be simple, unambiguous, and unchanging—no requirement, in other words, ensures that life follows philosophy.

inexact
aggressive
random
shameless
systematic

2 of 20

All the greatest chess players in the world know that it is folly to be (i)_____ when facing a formidable opponent, as stubbornness will almost surely lead to mistakes that force a player to (ii)_____ to the prevailing strategy of his or her opponent.

Blank (i)

Blank (ii)

finicky	capitulate
obdurate	dissent
vituperative	repudiate

3 of 20

The novel emphasizes the innate (i)_____ of all humans, showing how each and every character within the narrative is, ultimately, (ii)_____. This motif becomes tiresome due to its (iii)_____, however, as character after character is bribed, either explicitly or implicitly, into giving up his or her supposedly cherished beliefs.

Blank (i)

Blank (ii)

Blank (iii)

zealousness	adroit	redundancy
corruptibility	cunning	triviality
optimism	venal	subtlety

4 of 20

Although pirating software, such as borrowing a friend's copy of an installation CD or downloading software from unapproved sources is (i)_____, many people continue to do so (ii)_____, almost as if they were unaware that such acts amount to theft.

Blank (i)

Blank (ii)

uncommon	savagely
illegal	sensibly
difficult	unabashedly

5 of 20

Having squandered his life's savings on unprofitable business ventures, the _____ entrepreneur was forced to live in squalor.

former
unlikely
insolvent
perturbed
eccentric

6 of 20

Teachers of composition urge their students to

(i) _____ in their writing and instead use clear, simple language. Why use a (ii) _____ vocabulary when (iii) _____ phrasing conveys one's meaning so much more effectively?

Blank (i)

Blank (ii)

Blank (iii)

exscind obloquy	recreant	an arcane
eschew obfuscation	redolent	a limpid
evince ossification	recondite	a droll

For each of Questions 7 to 11, select one answer choice unless otherwise instructed.

Questions 7 through 8 are based on the following reading passage.

Neurobiologists have never questioned that axon malfunction plays a role in neurological disorders, but the nature of the relationship has been a matter of speculation. George Bartzokis's neurological research at UCLA suggests that many previously poorly understood disorders such as Alzheimer's disease may be explained by examining the role of the chemical compound myelin.

Myelin is produced by oligodendrocyte cells as a protective sheathing for axons within the nervous system. As humans

mature and their neurochemistries grow more complex, oligodendrocyte cells produce increasing amounts of myelin to protect the byzantine circuitry inside our nervous systems. An apt comparison may be to the plastic insulation around copper wires. Bereft of myelin, certain areas of the brain may be left vulnerable to short circuiting, resulting in such disorders as ADHD, schizophrenia, and autism.

7 of 20

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

It can be inferred from the passage that the author would be most likely to agree with which of the following statements regarding the role of myelin?

- The levels of myelin in the brain can contribute to the neurological health of individuals.
- Increasing the levels of myelin in the brain can reverse the effects of neurological damage.
- The levels of myelin in the brain are not fixed throughout the lifetime of an individual.

8 of 20

In the context in which it appears, byzantine most nearly means

- devious
- intricate
- mature
- beautiful
- electronic

9 of 20

The cost of operating many small college administrative offices is significantly reduced when the college replaces its heavily compensated administrative assistants with part-time work-study students whose earnings are partially subsidized by the government. Therefore, large universities should follow suit, as they will see greater financial benefits than do small colleges.

In the above argument it is assumed that

- replacing administrative assistants with work-study students is more cost-effective for small colleges than for large universities
- large universities usually depend upon small colleges for development of money-saving strategies
- the financial gains realized by large universities would not be as great were they to use non-work-study students in place of the administrative assistants
- work-study students at large universities could feasibly fulfill a similar or greater proportion of administrative assistant jobs than what they could at small colleges
- the smaller the college or university, the easier it is for that college or university to control costs

Questions 10 through 11 are based on the following reading passage.

The nineteenth century marked a revolutionary change in the way wealth was perceived in England. As landed wealth gave way to monied wealth, investments became increasingly speculative.

A popular investment vehicle was the three-percent consol which took its name from the fact that it paid three pounds on a hundred pound investment. The drawback to the consol was that once issued, there was no easy way for the government to buy back the debt. To address the problem, the British government instituted a sinking fund, using tax revenue to buy

back the bonds in the open market. The fact that the consol had no fixed maturity date ensured that any change in interest rate was fully reflected in the capital value of the bond. The often wild fluctuation of interest rates ensured the consol's popularity with speculative traders.

10 of 20

Which of the following best describes the relationship of the first paragraph of the passage to the passage as a whole?

- It provides a generalization which is later supported in the passage.
- It provides an antithesis to the author's main argument.
- It briefly compares two different investment strategies.
- It explains an investment vehicle that is later examined in greater detail.
- It provides a historical framework by which the nature of the nineteenth-century investor can more easily be understood.

11 of 20

In the second paragraph, select the sentence that describes a solution to a problem.

For questions 12 through 15, select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12 of 20

Owing to a combination of its proximity and _____ atmosphere, Mars is the only planet in our solar system whose surface details can be discerned from Earth.

- viscous
- ossified

- rarefied
- estimable
- copious
- meager

13 of 20

Using the hardships of the Joad family as a model, John Steinbeck's *The Grapes of Wrath* effectively demonstrated how one clan's struggles epitomized the _____ experienced by an entire country.

- reticence
- adversity
- repudiation
- quiescence
- verisimilitude
- tribulation

14 of 20

The Mayan pyramid of Kukulkan is more than just _____ edifice; this imposing structure was built to create a chirping echo whenever people clap their hands on the staircase. This echo sounds just like the chirp of the Quetzal, a bird which is sacred in the Mayan culture.

- a venerable
- a humble
- a beguiling
- an august
- a specious
- a prosaic