

AMI Assignment- Day 3

Answer Sheet:

(This sheet should be turned in as a record of your attendance.)

Write in the letter for your answer to each question.

English	Math	Reading	Science
1.	16.	26.	36.
2.	17.	27.	37.
3.	18.	28.	38.
4.	19.	29.	39.
5.	20.	30.	40.
6.	21.	31.	
7.	22.	32.	
8.	23.	33.	
9.	24.	34.	
10.	25.	35.	
11.			
12.			
13.			
14.			
15.			

English

Mini-Test 3

PASSAGE III

Attempts: _____ Correct: _____

Religious History in Rome

[1]

Rome, known worldwide as the heart of Christianity, housing Vatican City and the Pope. For thousands of years,

1. A. NO CHANGE
B. Christianity because it houses
C. Christianity, is home to
D. Christianity; housing

however, people worshipped the gods and goddesses of Roman mythology. Through their worship, the Romans were able to make sense of the world around them and build the unique culture the Roman Empire.

2. F. NO CHANGE
G. although,
H. therefore,
J. however;
3. A. NO CHANGE
B. culture; the
C. culture, the
D. culture of the

[2]

Rome today still has roots in these traditional values as evidenced the prominent architecture that continues to stand in the city, such as the Pantheon and various pagan statues.

4. F. NO CHANGE
G. Rome, today
H. Rome today,
J. Today, Rome
5. A. NO CHANGE
B. values, as evidenced by
C. values, that can be seen
D. values, as evidence by

[3]

The reformation of Rome from the ancient Roman religion to Christianity happened within only a few generations with or without the consent of the Roman public.

6. F. NO CHANGE
G. generations, with
H. generations; with
J. generations with,

[4]

When Christianity first came to Rome,
implemented largely by Emperor Theodosius in 391
C.E., not all Romans accepted the conversion. Many
 people in Rome, particularly the

senatorial elites, protested the removal of

pagan non-Christian altars and statues.

While Christianity was sweeping across the nation many
Romans were asking not only for more respect for

traditional altars; but freedom of religion.

[5]

Hence, religious tolerance was not implemented
 until many years

7. The writer is thinking about removing the following information:

implemented largely by Emperor Theodosius in 391 C.E.,

If the writer would delete this, how would it affect the essay?

- A. It would have no effect on the essay.
- B. The essay would lose historical context.
- C. The essay would lose irrelevant information about a Roman emperor.
- D. The essay would lose the writer's opinion about a Roman emperor.

8. F. NO CHANGE
 G. elites',
 H. elite's,
 J. elite;

9. A. NO CHANGE
 B. pagan and non-Christian
 C. pagan, non-Christian
 D. pagan

10. F. NO CHANGE
 G. nation the Romans
 H. nation; Romans
 J. nation, many Romans

11. A. NO CHANGE
 B. altars but
 C. altars, but also for
 D. altars, but for also

12. F. NO CHANGE
 G. However,
 H. Therefore,
 J. Although



later, the Roman protests against the removal of pagan altars

43

13. A. NO CHANGE
B. later the
C. later; the
D. after Roman

was revolutionary at that time in history. 45

44

14. F. NO CHANGE
G. were
H. continues to be
J. is

15. Suppose the writer intended to write on the history of ancient Roman mythology and gods. Would this essay as a whole have fulfilled her intention?
- A. Yes, because the essay covers religion in Roman history.
B. Yes, because the essay mentions religious tolerance in ancient Rome.
C. No, because the essay focuses more on the introduction of Christianity than specific Roman gods.
D. No, because the essay does not mention the Roman goddess Athena.

END OF MINI-TEST THREE
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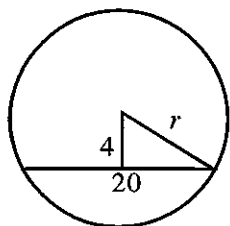
Math

Mini Test 3

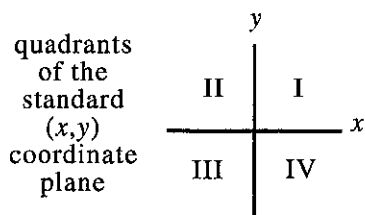
Attempts: _____ Correct: _____

DO YOUR FIGURING HERE.

16. A chord 20 inches long is 4 inches from the center of a circle, as shown below. What is the radius of the circle, to the nearest tenth of an inch?



- A. 4.0
B. 10.7
C. 10.8
D. 11.0
E. 21.6
17. Workers for a roofing company lean a 20-foot ladder against a building. The side of the building is perpendicular to the level ground so that the base of the ladder is 5 feet away from the base of the building. To the nearest foot, how far up the building does the ladder reach?
- F. 5
G. 10
H. 18
J. 19
K. 20
18. Point C is to be graphed in a quadrant of the standard (x,y) coordinate plane below.



If the x -coordinate and the y -coordinate of point C are to have the same signs, then point C must be located in:

- A. Quadrant I or II.
B. Quadrant I or III.
C. Quadrant I or IV.
D. Quadrant II or IV.
E. Quadrant III or IV.

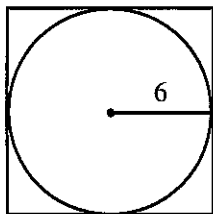
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DO YOUR FIGURING HERE.

19. What is the x -coordinate of the point in the standard (x,y) coordinate plane at which the two lines $y = 2x - 1$ and $y = x + 2$ intersect?
- F. -2
G. 0
H. 1
J. 3
K. 4

20. A square is circumscribed about a circle with a 6 foot radius, as shown below. What is the area of the square, in square feet?



- A. 12
B. 36
C. 72
D. 144
E. 288
21. If a rectangle measures 12 meters by 16 meters, what is the length, in meters, of the diagonal of the rectangle?
- F. 14
G. 18
H. 20
J. 22
K. 28
22. Which of the following is a set of all real numbers x , such that $x + 1 > x + 8$?
- A. The set containing zero
B. The set containing all real numbers
C. The set containing all positive numbers
D. The set containing all negative numbers
E. The empty set

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23. For all pairs of real numbers P and Q where $P = 2Q + 9$, $Q = ?$

DO YOUR FIGURING HERE.

F. $2P - 9$

G. $\frac{P + 9}{2}$

H. $\frac{P}{2} + 9$

J. $\frac{P}{2} - 9$

K. $\frac{P - 9}{2}$

24. The ratio of the radii of two circles is 5:12. What is the ratio of their circumferences?

- A. 5:12
B. $5:12\pi$
C. $10:12\pi$
D. 10:24
E. 25:144

25. Of the 777 graduating seniors in a certain high school, approximately $\frac{1}{3}$ are going to a trade school, and approximately $\frac{2}{7}$ of those going to a trade school are going to an art or design institute. Which of the following is the closest estimate for the number of graduating seniors going to an art or design institute?

- F. 74
G. 75
H. 110
J. 219
K. 256

END OF MINI TEST THREE
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Reading

Mini-Test 3

Attempts: _____ Correct: _____

Passage III

HUMANITIES: This passage is adapted from *Architecture and Democracy* by Claude Bragdon (©1918 by A.A. Knopf).

Broadly speaking, there are not five orders of architecture—nor fifty—but only two: arranged and organic. These correspond to the two terms of that “inevitable duality” which bisects life. Talent and genius, reason and intuition, bromide and sulfite are some of the names we know them by.

Arranged architecture is reasoned and artificial produced by talent and governed by taste. Organic architecture, on the other hand, is the product of some obscure inner necessity for self-expression, which is subconscious. It is as though nature herself, through some human organ of her activity, had addressed herself to the service of the sons and daughters of men.

Arranged architecture in its finest manifestations is the product of a pride, a knowledge, a competence, a confidence staggering to behold. It seems to say of the works of nature, “I’ll show you a trick worth two of that.” For the subtlety of nature’s geometry, and for her infinite variety and unexpectedness, arranged architecture substitutes a Euclidian system of straight lines and (for the most part) circular curves, assembled and arranged according to a definite logic of its own. It is created but not creative; it is imagined but not imaginative. Organic architecture is both creative and imaginative. It is non-Euclidian in the sense that it is higher-dimensional—that is, it suggests extension in directions and into regions where the spirit finds itself at home but of which the senses give no report to the brain.

To make the whole thing clearer, it may be said that arranged and organic architecture bear much the same relation to one another that a piano bears to a violin. A piano is an instrument that does not give forth discords if one follows the rules. A violin requires absolutely an ear—an inner rectitude. It has a way of betraying the man of talent and glorifying the genius, becoming one with his body and his soul.

Of course it stands to reason that there is not always a hard and fast differentiation between these two orders of architecture, but there is one sure way by which each may be recognized and known. If the function appears to have created the form, and if everywhere the form follows the function, changing as that changes, the building is organic; if on the contrary “the house confines the spirit,” if the building presents not a face but however beautiful a mask, it is an example of arranged architecture.

But in so far as it is anything at all, aesthetically, our architecture is arranged, so if only by the operation of the law of opposites, or alternation, we might reasonably expect the next manifestation to be organic. There are other and better reasons, however, for such expectancy.

Organic architecture is ever a flower of the religious spirit. When the soul draws near to the surface of life, as it did in the two mystic centuries of the Middle Ages, it organizes life; and architecture, along with the other arts, becomes truly creative. The informing force comes not so much from man as through him. After the war that spirit of brotherhood, born in the camps and bred on the battlefields and in the trenches of Europe, is likely to take on all the attributes of a new religion of humanity, prompting men to such heroisms and renunciations, exciting in them such psychic sublimations, as have characterized the great religious renewals of time past.

If this happens it is bound to write itself on space in an architecture beautiful and new; one which “takes its shape and sun-color” from the opulent heart. This architecture will of necessity be organic, the product not of self-assertive personalities but the work of the “patient demon” organizing the nation into a spiritual democracy.

The author is aware that in this point of view there is little of the “scientific spirit,” but science fails to reckon with the soul. Science advances facing backward, so what prevision can it have of a miraculous and divinely inspired future—or for the matter of that, of any future at all? The old methods and categories will no longer answer; the orderly course of evolution has been violently interrupted by the earthquake of the war; igneous action has superseded aqueous action. The casements of the human mind look out no longer upon familiar hills and valleys, but on a stark, strange, devastated landscape, the ploughed land of some future harvest of the years. It is the end of the age, the Kali Yuga—the completion of a major cycle—but all cycles follow the same sequence: after winter, spring; and after the Iron Age, the Golden.

The specific features of this organic, divinely inspired architecture of the Golden Age cannot of course be discerned by any one any more than the manner in which the Great Mystery will present itself anew to consciousness. The most imaginative artist can imagine only in terms of the already-existent; he can speak only the language he has learned. And yet some germs of the future must be enfolded even in the present moment. The course of wisdom is to seek them neither in the old romance nor in the new rationalism but in the subtle and ever-changing spirit of the times.

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26. Which of the following questions is NOT answered in the passage?
- A. What are the two main orders of architecture?
 - B. What are the qualities of arranged architecture?
 - C. What was the name of the period before the Middle Ages?
 - D. What are the qualities of organic architecture?
27. All of the following descriptions are used in the passage to characterize arranged architecture EXCEPT that it is:
- F. based on a Euclidian system of straight lines and circular curves.
 - G. creative and imaginative.
 - H. assembled and arranged.
 - J. reasoned and artificial.
28. Paragraphs 1 through 4 (lines 1–36) establish all of the following about organic architecture EXCEPT its:
- A. origins.
 - B. differences from arranged architecture.
 - C. association with religion and spirituality.
 - D. inevitably dual nature.
29. According to the passage, which of the following best describes the author's predictions about the architecture of the new "Golden Age"?
- F. The architecture of the future will likely be organic.
 - G. The architecture of the future will likely be arranged.
 - H. The architecture of the future will be for religious buildings.
 - J. The architecture of the future will be the product of self-assertive personalities.
30. The author mentions the idea of how "the house confines the spirit" as part of his argument that:
- A. one can find clear signs to tell the difference between the two orders of architecture.
 - B. the arranged form of architecture follows the law of opposites.
 - C. the arranged form of architecture feels too closed in and claustrophobic.
 - D. the arranged form of architecture is based on an outgrowth of spirit.
31. In the context of the passage, paragraph 9 (lines 69–83) is best described as presenting images of all of the following EXCEPT:
- F. disaster.
 - G. devastation.
 - H. war.
 - J. mystery.
32. The author indicates that one reason he believed that the organic order of architecture was on the rise was that:
- A. since the current trend was arranged, it would alternate to being organic because of the law of opposites.
 - B. a spiritual democracy would have a law that all architecture must be organic.
 - C. organic architecture is best, so it is the wave of the future.
 - D. the Iron Age was populated mainly with organic architecture.
33. Information in the passage suggests that the author believes the exact features of the future architectural style cannot be described primarily because:
- F. he is not sufficiently romantic or rational.
 - G. we can only know what will come once the war is over.
 - H. one can only imagine based on what already exists.
 - J. even though he knows what it will look like, he cannot express it in words.



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34. Based on paragraphs 1 through 4 (lines 1–36), which of the following statements indicates the author’s opinion of the relationship between organic and arranged architecture?
- A. Though they are both styles of architecture, the arranged style is more structured, while the organic style is more imaginative.
 - B. Both the organic and the arranged styles of architecture will soon give way to a spiritual form of architecture.
 - C. All architecture is both organic and arranged.
 - D. For thousands of years, mankind has alternated between an arranged and an organic architectural style.
35. The passage indicates that the violin described in paragraph 4 (lines 29–36) represents:
- F. the human spirit.
 - G. arranged architecture.
 - H. organic architecture.
 - J. a lack of discord.



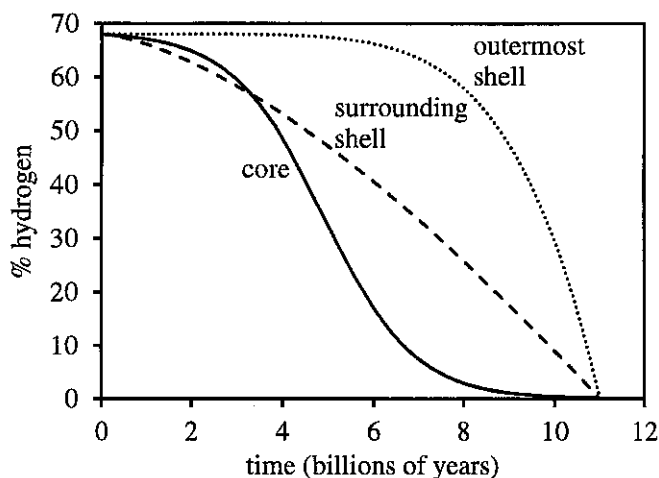
Science

Mini-Test 3

Passage III

Attempts: _____ Correct: _____

Stars begin their lives composed of roughly 70% hydrogen. Nuclear fusion of hydrogen atoms at the cores of stars drives the majority of energy and luminosity. After the majority of hydrogen has been exhausted from the star's core, the star enters into the red giant branch and begins the fusion of hydrogen in the surrounding shell, as well as the fusion of helium in its core. The hydrogen in the surrounding shell is quickly exhausted, as is the helium in the core, and near the end of the star's life, it begins to fuse hydrogen and then helium in its outermost shell until all of it is exhausted. The figure below shows the percentage of hydrogen present in a star over the course of its life cycle.



36. Based on the figure, the percentage of hydrogen in the surrounding shell after 8 billion years will be closest to which of the following:

F. 30%
 G. 35%
 H. 40%
 J. 45%

37. Based on the figure, at how many billions of years will there be roughly 0% hydrogen remaining in the core?

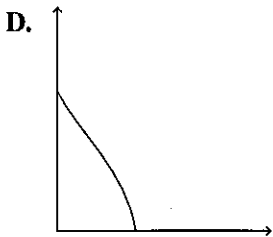
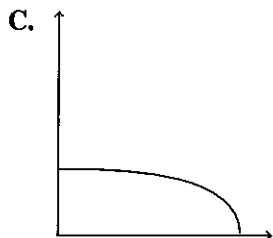
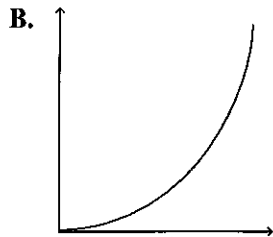
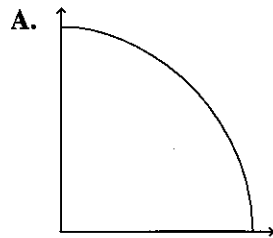
A. Between 7 and 8
 B. Between 8 and 9
 C. Between 9 and 10
 D. Between 10 and 11

38. After the fusion of hydrogen is exhausted in the core and fusion of hydrogen begins in the surrounding shell, the fusion of helium begins in the core. Which of the following is most likely true about the percentage of helium in the core as time increases?

F. The percentage of helium decreases over time.
 G. The percentage of helium increases over time.
 H. The percentage of helium does not change over time.
 J. The percentage of helium over time cannot be determined.



39. A star's core is approximately 28% helium at the beginning of its lifetime. A scientist theorizes that the amount of helium present begins to drop only after the percentage of hydrogen present in the core drops below 20%. According to this theory, which of the following is the best graphical representation of the percentage of helium over time?



40. After 11 billion years, the star will shed nearly all of its mass and become a white dwarf, surviving for billions of years before fading out. Which of the following most likely catalyzes the transition from red giant to white dwarf?

- F. The exhaustion of hydrogen in the core
- G. The exhaustion of hydrogen and helium in the core
- H. The exhaustion of hydrogen in the core and the exhaustion of helium in the shells
- J. The exhaustion of hydrogen in the shells and the exhaustion of helium in the shells and core

END OF MINI-TEST THREE

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