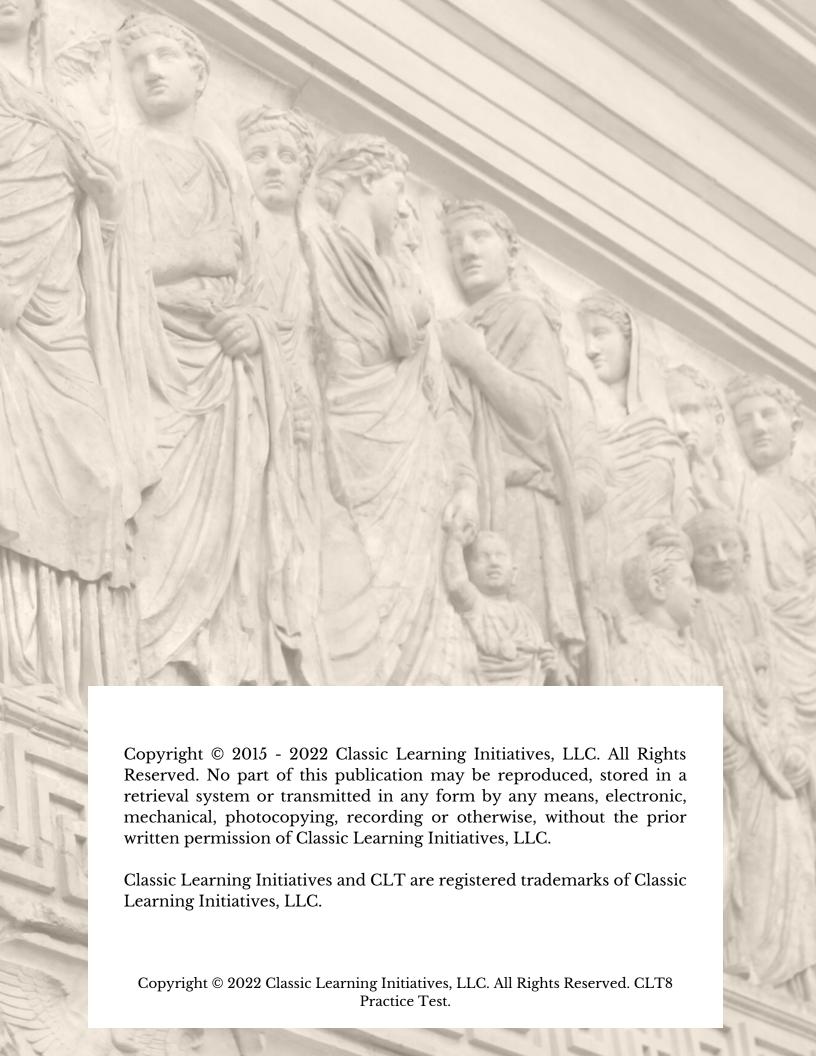
# CLT8

Reconnecting Knowledge & Virtue







### Table of Contents

Section I: Verbal Reasoning	2
Section II: Grammar/Writing	14
Section III: Quantitative Reasoning	.25

Each section will have a corresponding time limit. Do not begin the next section until told to do so.

The times for each section are:

Verbal Reasoning: 45 minutes Grammar/Writing: 40 minutes Quantitative Reasoning: 50 minutes

If you finish a section early, you may use the remaining time to check your work, but only on that section.

If you have any questions, raise your hand and ask your test proctor.

# Section I

# Verbal Reasoning

### Instructions

You will have 45 minutes to complete Section I.

Read each passage and answer the corresponding questions to the best of your ability. 10 questions will follow each of the 4 passages, for a total of 40 questions. Choose your answer based on the evidence given in the passage; no outside knowledge is required.

The final two questions for each passage will be analogy questions. Use your knowledge of the passage and the relationships demonstrated within it to arrive at your answer and complete each analogy.

Copyright © 2022 Classic Learning Initiatives, LLC. All Rights Reserved. CLT8 Practice Test.

# Ι

### Literature

This passage is adapted from Rudyard Kipling's "The White Seal" in The Jungle Book, first published in 1894.

Kotick swam back to Novastoshnah. There he found that no one sympathized with him in his little attempt to discover a quiet place for the seals. They told him that men had always driven the holluschickie—it was part of the day's work—and that if he did not like to see ugly things he should not have gone to the killing grounds. But none of the other seals had seen the killing, and that made the difference between him and his friends. Besides, Kotick was a white seal.

"What you must do," said old Sea Catch, after he had heard his son's adventures, "is to grow up and be a big seal like your father, and have a nursery on the beach, and then they will leave you alone. In another five years you ought to be able to fight for yourself."

Even gentle Matkah, his mother, said: "You will never be able to stop the killing. Go and play in the sea, Kotick." And Kotick went off with a very heavy little heart.

That autumn he left the beach alone. He was going to find a quiet island with good firm beaches for seals to live on, where men could not get at them. So he explored and explored by himself from the North to the South Pacific, swimming as much as three hundred miles in a day and a night. But he never found an island that he could fancy.

Kotick spent five seasons exploring, with a four months' rest each year at Novastoshnah, when the holluschickie used to make fun of him and his imaginary islands.

One day Kotick found an old, old seal who was dying, and Kotick caught fish for him and told him all his sorrows. "Now," said Kotick, "I am going back to Novastoshnah, and if I am driven to the killing-pens with the holluschickie I shall not care."

The old seal said, "Try once more. I am the last of the Lost Rookery of Masafuera, and in the days when men killed us by the hundred thousand there was a story on the beaches that some day a white seal would come out of the North and lead the seal people to a quiet place. I am old, and I shall never live to see that day, but others will. Try once more."

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



- 1. The passage is primarily from the perspective of
  - A) a young white seal.
  - B) an old, dying seal.
  - C) a young seafaring man.
  - D) a magical old creature.
- 2. Which of the following best describes Kotick's main mission in the passage?
  - A) To find the white seal
  - B) To return home after his long adventures
  - C) To find a place where seals can live safely
  - D) To fulfill the prophecy of the white seal
- 3. Matkah's attitude toward the killing is one of
  - A) despair.
  - B) resignation.
  - C) confusion.
  - D) welcoming.
- 4. Which lines in the passage best support the answer to the previous question?
  - A) Paragraph 1, Sentence 2 ("There he . . . seals")
  - B) Paragraph 2, Sentence 2 ("In another . . . yourself")
  - C) Paragraph 3, Sentence 1 ("Even gentle . . . killing")
  - D) Paragraph 3, Sentence 2 ("Go and . . . Kotick")
- 5. In Paragraph 4, Sentence 4, the phrase "he could fancy" most closely means
  - A) he felt met his requirements.
  - B) he believed was suitably decorative.
  - C) he thought had good weather.
  - D) he enjoyed spending time on.
- 6. How many months did Kotick spend resting at Novastoshnah each year?
  - A) Three
  - B) Four
  - C) Five
  - D) Six

- 7. The old seal tells Kotick that he (the old seal) will never live to see which day?
  - A) The day the Lost Rookery of Masafuera would follow a fabled white seal to Novastoshnah
  - B) The day men would kill the seals by the hundred thousand
  - C) The day all seals are to be driven to the killingpens with the holluschickie
  - D) The day a white seal would come out of the North and lead the seal people to a quiet place
- 8. Which of the following best describes the order of events in the passage?
  - A) Kotick swims back to Novastoshnah; Kotick searches for an island where seals can live without men disturbing them; Kotick meets an old seal with cryptic warning; Kotick decides to continue on his mission.
  - B) Kotick discusses the plight of the seals with his parents; Kotick ventures out into the sea; Kotick meets an old seal with a cryptic warning; Kotick swims back to Novastoshnah.
  - C) Kotick swims back to Novastoshnah; Kotick receives advice from his parents on the killing of the seals; Kotick searches for an island where seals can live without men disturbing them; Kotick meets an old seal who provides him with encouragement.
  - D) Kotick discusses the plight of the seals with his parents; Kotick ventures out into the sea and has many adventures; Kotick meets an old seal who provides him with encouragement; Kotick swims back to Novastoshnah.
- 9. Sea Catch: father::

A) Matkah : mother B) Kotick : mother C) Novastoshnah : son D) Masafuera : son

10. old seal: Lost Rookery of Masafuera::

A) holluschickie: heart B) autumn: seasons C) white seal: Kotick D) nursery: beach



## Science

This passage is adapted from Léa Surugue's "Why is it so hard to stop people dying from snakebite?", first published in 2019 in Mosaic (https://mosaicscience.com/story/snakebite-antivenom-crisis-Africa-Togo/). Licensed under CC-BY.

Each year an estimated 2.7 million people around the world are bitten by venomous snakes and about 100,000 die. Most victims live in poor, rural, and politically marginalized communities. Data from Africa is fragmented, but the latest figures suggest that snakebites kill up to 20,000 people each year in sub-Saharan Africa alone.

In 2017, the World Health Organization (WHO) finally recognized the problem by classifying venomous snakebite as a neglected tropical disease. This led to renewed discussions about the only specific treatment currently available—antivenom.

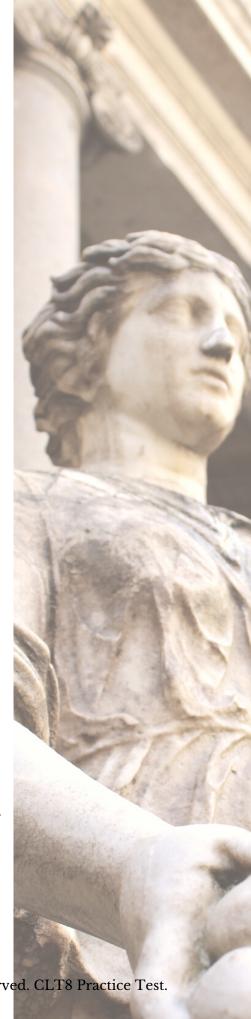
When adequately manufactured, distributed, and administered, antivenom saves lives. But right now, the world produces less than half of what it needs. Antivenom is made using a technique that's over a century old, and there aren't any common standards to measure its safety or effectiveness, leading to a high risk of adverse reactions. And for over 40 percent of the world's snake species, there's no antivenom whatsoever.

Milking a snake is the first step in creating antivenom. The process is over 120 years old, and has changed very little in that time. You inject small, non-toxic doses of venom into an animal—usually a horse or a sheep—to stimulate an immune response. The animal then starts producing antibodies against the venom's toxins, and you draw some of its blood. Finally, you isolate and purify these antibodies, and make them into a stable solution that can be given to patients as an injection.

This may sound simple, but it isn't. Because antivenom is made up of animal antibodies and foreign proteins, it can cause adverse reactions in the human body—especially if you don't purify it well enough. Side-effects range from rashes, nausea, and headaches to anaphylactic shock in rare cases.

Venoms are also complicated substances to treat. They're made up of hundreds of different toxins whose properties and interactions are still not entirely understood. The combinations of toxins and their effects vary widely from species to species. And even if the right antivenom is available, matching it to a particular snakebite is difficult.

The priorities over the coming years will be to improve the treatments we already have—including how they're made—and to make it easier for people to get products that already have a proven track record.



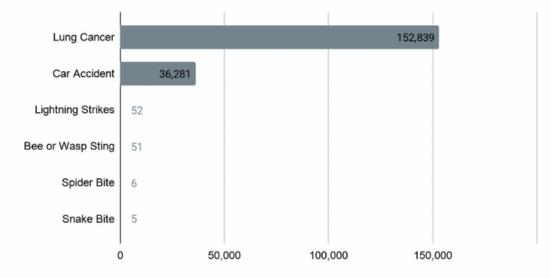
To help, the WHO is currently testing antivenom quality worldwide as part of a 'prequalification' scheme. It's long used this system to assess and maintain the quality of other drugs.

The WHO's envenoming strategy, published in May 2019, promotes safe, effective, and affordable treatments, but underlines that treatments will only have their best effect if health systems are improved and communities engage with them. Only when patients seek care straightaway, with the right knowledge and treatments then being applied, can snakebite be most successfully treated.

CC BY license can be found at https://creativecommons.org/licenses/by/4.0/.
This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



Chart 1. Number of Deaths Per Year in the U.S. in 2020 Due to Various Causes



CLI 2021. Data derived from: https://ufwildlife.ifas.ufl.edu/venomous\_snake\_faqs.shtml

- 11. The passage primarily focuses on which of the following?
  - A) The dangers of snakebites and their effects on the people poisoned with venom
  - B) The treatment of snakebites with antivenom and some of antivenom's challenges
  - C) The process of creating antivenom and how the WHO plans to manufacture more
  - D) The importance of treating snakebites promptly and the best ways to do so
- 12. Which of the following best describes how the author feels about antivenom?
  - A) She feels that the world does not have enough of it.
  - B) She feels that doctors should prioritize other treatments due to the unproven efficacy of antivenom.
  - C) She feels that it is dangerous and should be avoided.
  - D) She feels that it is a cheap but ineffective treatment due to its complicated production process.
- 13. Which lines in the passage best support the answer to the previous question?
  - A) Paragraph 1, Sentence 1 ("Each year . . . die")
  - B) Paragraph 2, Sentence 2 ("This led . . . antivenom")
  - C) Paragraph 3, Sentence 2 ("But right . . . needs")
  - D) Paragraph 3, Sentence 3 ("Antivenom is . . . reactions")
- 14. According to the passage, antivenom is the
  - A) poison injected by snakebites.
  - B) only specific treatment available for snakebites.
  - C) blood of animals resistant to snakebites.
  - D) only way to survive any snakebite
- 15. Based on the passage, "milking a snake" most likely means
  - A) capturing a snake and studying its venom.
  - B) injecting the snake with small doses of venom.
  - C) drawing milk from a snake that has recently reproduced.
  - D) extracting the snake's venom.

- 16. In Paragraph 4, Sentence 3, the word "stimulate" most closely means
  - A) energize.
  - B) articulate.
  - C) generate.
  - D) restore.
- 17. The final two paragraphs of the passage focus on which of the following?
  - A) Different paths patients can take to secure treatment for snakebite
  - B) New initiatives from the WHO to categorize different types of snakes
- C) The mechanisms behind how antivenom works
- D) Efforts by the WHO to improve treatment of snakebite
- 18. Which of the following can be concluded from Chart
  - A) In 2020, 52 people worldwide died as a result of a lightning strike.
  - B) There are about eight times as many wasps and bees in the U.S. as there are spiders.
  - C) In the United States, about five people die from a snake bite each year.
  - D) The percentage of deaths in the U.S. attributable to bee or wasp stings in 2020 was much less than 1%.
- 19. venomous snakebite : neglected tropical disease ::

A) venom : snake B) horse : animal C) toxin : protein D) rashes : nausea

20. venom: illness::

A) disease : treatment

B) disease: global treatment C) antivenom: treatment D) antivenom: restored health

# Ι

# Philosophy/Religion

This passage is adapted from Plato's The Republic, first published around 375 BC and translated here by Benjamin Jowett.

According to the tradition, Gyges was a shepherd in the service of the king of Lydia; there was a great storm, and an earthquake made an opening in the earth at the place where he was feeding his flock. Amazed at the sight, he descended into the opening, where, among other marvels, he saw a gold ring; this he took and reascended.

Now the shepherds met together, according to custom, that they might send their monthly report about the flocks to the king; into their assembly he came having the ring on his finger, and as he was sitting among them he chanced to turn the collet of the ring inside his hand, when instantly he became invisible to the rest of the company and they began to speak of him as if he were no longer present.

He was astonished at this, and again touching the ring he turned the collet outwards and reappeared. He made several trials of the ring, and always with the same result—when he turned the collet inwards he became invisible, when outwards he reappeared. He contrived then to be chosen one of the messengers who were sent to the court. As soon as he arrived he slew the king and took the kingdom.

Suppose now that there were two such magic rings, and the just put on one of them and the unjust the other. No man can be imagined to be of such an iron nature that he would stand fast in justice. No man would keep his hands off what was not his own when he could safely take what he liked out of the market, or kill or release from prison whom he would, and in all respects be like a God among men. Then the actions of the just would be as the actions of the unjust; they would both come at last to the same point.

And this we may truly affirm to be a great proof that a man is just, not willingly or because he thinks that justice is any good to him individually, but of necessity, for wherever any one thinks that he can safely be unjust, there he is unjust. For all men believe in their hearts that injustice is far more profitable to the individual than justice, and he who argues as I have been supposing will say that they are right.

If you could imagine anyone obtaining this power of becoming invisible, and never doing any wrong or touching what was another's, he would be thought by the lookers-on to be a most wretched idiot, although they would praise him to one another's faces, and keep up appearances with one another from a fear that they too might suffer injustice.

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



- 21. The passage focuses mainly on which of the following?
  - A) The dangers of magical rings in criminals' hands
  - B) The folly of a shepherd who wanted to become a king
  - C) The temptation of power and how it affects people
  - D) The lack of justice in a society that has become lawless
- 22. Which of the following is NOT one of the themes discussed in the passage?
  - A) Power
  - B) Justice
  - C) Ambition
  - D) Charity
- 23. Which of the following best describes the structure of the passage?
  - A) The passage opens with a story, then pivots to discuss the author's personal experience, and ends with a suggestion.
  - B) The passage opens with a declaration, then describes a story, and ends with an appeal.
  - C) The passage opens with a hypothetical scenario, then offers a suggestion, and ends with an anecdote.
  - D) The passage opens with an anecdote, then offers a hypothetical, and ends with analysis.
- 24. According to the passage, where did Gyges find the ring?
  - A) In a riverbed
  - B) In an opening in the earth
  - C) In the woods
  - D) In the king's own treasury
- 25. Based on the passage, what did Gyges do once he realized the powers of the ring?
  - A) He shared his newfound powers with his friends.
  - B) He robbed from the rich and gave to the poor.
  - C) He slew the king and took over the kingdom.
  - D) He withdrew from society and lived off of stole goods.

- 25. Based on the passage, what did Gyges do once he realized the powers of the ring?
  - A) He shared his newfound powers with his friends.
  - B) He robbed from the rich and gave to the poor.
  - C) He slew the king and took over the kingdom.
  - D) He withdrew from society and lived off of stolen goods.
- 26. The author suggests which of the following?
  - A) When it comes to declarations of injustice, men can often act hypocritically.
  - B) Most people are just, no matter what temptations they face in life.
  - C) Only those who act justly will acquire power and riches.
  - D) Fairness is in the eye of the beholder and men must use every tool to their advantage.
- 27. Which lines in the passage best support the answer to the previous question?
  - A) Paragraph 4, Sentence 1 ("Suppose now . . . other")
  - B) Paragraph 4, Sentence 4 ("Then the . . . point")
  - C) Paragraph 5, Sentence 2 ("For all . . . right")
  - D) Paragraph 6, Sentence 1 ("If you . . . injustice")
- 28. In Paragraph 5, Sentence 2, the word "profitable" most closely means
  - A) commercial.
  - B) economical.
  - C) beneficial.
  - D) illuminating.
- 29. Gyges: king of Lydia::

A) custom: assembly

B) leader: ring

C) shepherd : ruler

D) collet: invisibility

- 30. turning collet of ring inward: invisibility::
  - A) slaying the king : justice
  - B) turning collet of ring outward: injustice

C) remorse : theft

D) power : corruption

I

# Historical/Founding Documents

Passage 1 is adapted from Cicero's On Friendship, first published in the first century BC, and translated here by E. S. Shuckburgh.

Passage 2 is adapted from Thomas Jefferson's "Letter to Mrs. Cosway", composed in 1786, in which he describes to his recipient a conversation between his head and his heart on the merits of friendship.

#### Passage 1

Now, by "worthy of friendship" I mean those who have in themselves the qualities which attract affection. This sort of man is rare, and indeed all excellent things are rare. Nothing in the world is so hard to find as a thing entirely and completely perfect of its kind. But most people not only recognize nothing as good in our life unless it is profitable, but look upon friends as so much stock, caring most for those by whom they hope to make the most profit.

Accordingly, they never possess that most beautiful and most spontaneous friendship which must be sought solely for itself without any ulterior object. They fail also to learn from their own feelings the nature and the strength of friendship. For everyone loves himself, not for any reward which such love may bring, but because he is dear to himself independently of anything else. But unless this feeling is transferred to another, what a real friend is will never be revealed, for he is, as it were, a second self.

#### Passage 2

Head: Friendship is but another name for an alliance with the follies and the misfortunes of others. Our own share of miseries is sufficient: why enter then as volunteers into those of another? Is there so little gall poured into our cup, that we must needs help to drink that of our neighbor? A friend dies, or leaves us: we feel as if a limb was cut off. He is sick: we must watch over him, and participate of his pains. His fortune is shipwrecked: ours must be laid under contribution. He loses a child, a parent, or a partner: we must mourn the loss as if it were our own.

Heart: When languishing then under disease, how grateful is the solace of our friends! How are we penetrated with their assiduities and attentions! How much are we supported by their encouragements and kind offices! When Heaven has taken from us some object of our love, how sweet is it to have a bosom whereon to recline our heads, and into which we may pour the torrent of our tears! Grief, with such a comfort, is almost a luxury! In a life where we are perpetually exposed to want and accident, yours is a wonderful proposition, to insulate ourselves, to retire from all aid, and to wrap ourselves

in the mantle of self-sufficiency! For assuredly nobody will care for him, who cares for nobody. But friendship is precious, not only in the shade, but in the sunshine of life: and thanks to a benevolent arrangement of things, the greater part of life is sunshine.

These passages have been excerpted and adapted from their originals, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.

- 31. Passage 1 opens with which of the following?
  - A) A definition
  - B) A rhetorical question
  - C) An anecdote
  - D) A metaphor
- 32. The author of Passage 1 would likely agree with which of the following statements?
  - A) True friends are hard to come by since so many people are duplicitous in their dealings.
  - B) The vast majority of people treat their friends as an economic means to an end, seeking ways to steal others' fortunes.
  - C) Most people do not achieve the deeper level of friendship that is valuable as an end in itself.
  - D) Friendship with one's own spirit must be achieved before one can be a true friend to another individual.
- 33. Which lines in Passage 1 best support the answer to the previous question?
  - A) Paragraph 1, Sentence 4 ("But most . . . profit")
  - B) Paragraph 2, Sentence 1 ("Accordingly . . . object")
  - C) Paragraph 2, Sentence 3 ("For everyone . . . else")
  - D) Paragraph 2, Sentence 4 ("But unless . . . self")

- 34. Which of the following best represents the respective views of the Head and the Heart towards friendship, as told in Passage 2?
  - A) The Head lists the dangers of friendship, while the Heart lists the ways to earn a living through friendship.
  - B) The Head ruminates on the ways friendship affects an individual, while the Heart considers all of the ways that friendship affects society.
  - C) The Head considers the actions attached to friendship, while the Heart focuses on the emotions connected to friendship.
  - D) The Head focuses on the drawbacks of friendship, while the Heart focuses on the benefits of friendship.
- 35. In Passage 2, the Heart makes clear that people who care for nobody else
  - A) will not be cared for by anybody else.
  - B) will be loved in spite of their flaws.
  - C) will face more trials in life.
  - D) will be successful, but at the cost of friendship.
- 36. In the final sentence of Passage 2, Paragraph 2, the author of Passage 2 uses "shade" and "sunshine" to refer to which of the following?
  - A) Darkness and sunlight
  - B) Hard times and happy times
  - C) Rest and work
  - D) Evil and good
- 37. Both Passage 1 and Passage 2 deal with which of the following ideas?
  - A) The dangers of isolation from society
  - B) How friendship can destroy an individual
  - C) The ways in which relationships affect people
  - D) Why friendship is often illusory and elusive

38. Both Passage 1 and Passage 2 make reference to which of the following?

- A) The misfortunes of others
- B) The advantages of isolation
- C) The solace of romantic attachments
- D) The benefits of connection

39. The following analogy is based on Passage 1. individual: individual's friend::

A) good : profitableB) self : second selfC) world : friendship

D) life: worth

40. The following analogy is based on Passage 2. Head: negative towards friendship:: Heart:

- A) negative towards emotion
- B) wary of friendship
- C) positive towards friendship
- D) positive towards the mind



# Section II

# Grammar/Writing

### Instructions

You will have 40 minutes to complete Section II.

Read each of the 4 passages in this section and answer the corresponding questions (40 total) to the best ofyour ability. Each question will ask you to either correct an error or suggest an improvement in the passage. If no change is necessary, select the option "NO CHANGE."

Note: Most questions correspond to a numbered portion of the passage. In these questions, answer choices represent alternatives that could be substituted for the numbered portion. Select the best answer choice out of the given options.

Copyright © 2022 Classic Learning Initiatives, LLC. All Rights Reserved. CLT8 Practice Test.



# Philosophy/Religion

This passage is adapted from Thomas à Kempis's "The Doctrine of Truth" in The Imitation of Christ, first written in the early fifteenth century and translated here by Rev. William Benham.

The more recollected a man is and the more simple of heart he becomes, the easier he understands sublime things, for he receives the light of knowledge [41] to above. The [42] <u>pure, simple and, steadfast</u> spirit is not distracted by many labors, for he does them all for the honor of God. And since he enjoys

interior peace he seeks no selfish end in anything. [43] What, indeed, gives more trouble and affliction than uncontrolled desires of the heart?

A good and devout man arranges in his mind the things he has to do not according to the whims of evil [44] <u>information</u> but according to the dictates of right reason. [45] <u>I mean, who has to struggle more than the person who tries to master himself?</u> This ought to be our purpose, then: to conquer self, to become stronger each day, to advance in virtue.

Every perfection in this life has some imperfection mixed with it, and no learning of ours is without some darkness. [46] <u>Humble knowledge of self is a surer path to God than the ardent pursuit of learning by oneself.</u> Not that learning is to be considered evil, or knowledge, which is good in itself and so ordained by God, but a clean conscience and virtuous life ought always to be preferred. Many often err and accomplish little or nothing because they try to become learned rather than to live well.

If men used as much care in uprooting vices and [47] <u>destroying virtues</u> as they do in discussing problems, there would not be so much evil and scandal in the world, or such laxity in religious organizations. On the day of judgment, surely, we shall not be asked what we have read but what we have done; not how well we have spoken but [48] <u>how well we have lived.</u>

Tell me, where now are all the masters and teachers whom you knew so well in life and who were famous for their learning? Others have already taken their places, and I know not whether they ever think of their predecessors. During life they seemed to be something; [49] before they are seldom remembered. How quickly the glory of the world passes away! If only their lives had kept pace with their learning, then their study and reading would have been worthwhile.

How many there are who perish because of vain worldly knowledge and too little care for serving God. They became vain in their own conceits because they [50] <u>will choose</u> to be great rather than humble.

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



- 41. to
  - A) NO CHANGE
  - B) from
  - C) for
  - D) with
- 42. pure, simple and, steadfast
  - A) NO CHANGE
  - B) pure, simple, and steadfast
  - C) pure simple and steadfast
  - D) pure simple, and steadfast
- 43. What, indeed, gives more
  - A) NO CHANGE
  - B) What indeed, gives more
  - C) What, indeed gives more
  - D) What indeed, gives, more
- 44. information
  - A) NO CHANGE
  - B) installation
  - C) inclination
  - D) indisposition
- 45. Which of the following choices best matches the tone of the passage?

I mean, who has to struggle more than the person who tries to master himself?

- A) NO CHANGE
- B) Let's be real: who has to struggle more than someone trying to master himself?
- C) Who is forced to struggle more than some person just trying to master himself?
- D) Who is forced to struggle more than he who tries to master himself?

46. Which of the following choices represents the clearest and most concise way to convey all of the information in the sentence?

Humble knowledge of self is a surer path to God than the ardent pursuit of learning by oneself.

- A) NO CHANGE
- B) Humble knowledge of and information-gathering about oneself is a surer path to God than the ardent, vigorous pursuit of learning by oneself.
- C) Humble knowledge of self is a surer path to God than the ardent pursuit of learning.
- D) Humble knowledge of and information-gathering about oneself is a surer path to God than the ardent, vigorous pursuit of learning.
- 47. destroying virtues
  - A) NO CHANGE
  - B) implanting virtues
  - C) destroying learning
  - D) implanting learning
- 48. how well we have lived.
  - A) NO CHANGE
  - B) whether or not we've lived well.
  - C) how well some of us have lived.
  - D) well, whether some of us have lived well.
- 49. before
  - A) NO CHANGE
  - B) meanwhile
  - C) now
  - D) thus
- 50. will choose
  - A) NO CHANGE
  - B) chose
  - C) are chosen
  - D) will have been chosen



## Historical Profile

This passage is adapted from George Eliot's "Letter About Rome Artists," in George Eliot's Life as Related in Her Letters and Journals, first published in 1855.

We visited only four artists' studios in Rome: Gibson's, the sculptor; Frey's, the landscape painter; Riedel's, the genre painter; and Overbeck's.

Gibson's [51] <u>is</u> entirely disappointing to me, so far as his own sculptures are [52] <u>concerned except the</u> Cacciatore, which he sent to the Great Exhibition, I could see nothing but feeble imitations of the antique—no [53] <u>spontaneity</u> and no vigor.

Frey is a very [54] monotonous landscape painter—finished in execution and poetic in feeling. His Egyptian scenes—the Simoon, the Pair in the Light of Sunset, and the Island of Philæ—are memorable pictures; [55] but not the View of Athens, with its blue, island-studded sea.

Riedel interested [56] greatly us with his account of the coincidence between the views of light and colors at which he had arrived through his artistic experience, and Goethe's theory of colors, with which he became acquainted only after he had thought of putting his own ideas into shape for publication. He says the majority of painters continue [57] they're work when the sun shines from the north—they paint with blue light.

But it was our visit to Overbeck that we were most pleased not to have missed. [58] The man himself is more interesting than his pictures: a benevolent calm and quiet conviction breathes from his person and manners. He has a thin, rather high-nosed face, with long gray hair, set off by a maroon velvet cap, and a gray scarf over his shoulders. [59] I really liked some of his cartoons: one large one of our Savior passing from the midst of the throng who were going to cast him from the brow of the hill at Capernaum—one foot resting on a cloud borne up by cherubs—and [60] his promise representing the Parable of the Ten Virgins and applying it to the function of the artist.

How much more I have to write about Rome! But here I am only to give a hasty sketch of what we saw and did at each place at which we paused in our three months' life in Italy.

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



#### 51. is

- A) NO CHANGE
- B) was
- C) will be
- D) being

#### 52. concerned except the

- A) NO CHANGE
- B) concerned; and except the
- C) concerned except, the
- D) concerned; except the

#### 53. spontaneity and no vigor.

- A) NO CHANGE
- B) spontaneity and vigor.
- C) spontaneity and none vigor.
- D) spontaneity and not vigor.

#### 54. monotonous

- A) NO CHANGE
- B) miscellaneous
- C) meritorious
- D) mischievous

#### 55. but not

- A) NO CHANGE
- B) so is
- C) given that
- D) for example

#### 56. greatly us

- A) NO CHANGE
- B) us greatly
- C) great us
- D) us great

#### 57. they're

- A) NO CHANGE
- B) their
- C) there
- D) them

# 58. Which of the following choices represents the clearest and most concise way to convey all of the information in the sentence?

The man himself is more interesting than his pictures: a benevolent calm and quiet conviction breathes from his person and manners.

#### A) NO CHANGE

- B) The man himself is more interesting than his pictures in his person and manners: a benevolent calm and quiet conviction breathes.
- C) A benevolent calm and quiet conviction breathes: the man himself is more interesting than his pictures in his person and manners.
- D) A benevolent calm breathes in his person and manners, the man himself more interesting than his pictures.

### 59. Which of the following choices best matches the tone of the passage?

#### I really liked some of his cartoons

- A) NO CHANGE
- B) The perception of his cartoons by my ocular senses delighted me
- C) The viewing of his cartoons just really delighted me
- D) Some of his cartoons pleased me

#### 60. his promise

- A) NO CHANGE
- B) a sketch of mine
- C) some smaller round cartoons
- D) our Savior



### Science

This passage is adapted from Adya Misra's "The Changing Face of Cardiovascular Medicine: Insights from the European Society of Cardiology Annual Congress," first published in 2019 in PLOS, licensed under CC-BY.

Every year approximately 30,000 researchers, medical doctors, and policymakers come together [61] <u>are discussing</u> the latest developments in cardiovascular medicine. [62] <u>This year, I joined the European Society of Cardiology's (ESC) annual congress to learn how the field of cardiology in sunny Paris is evolving within the rapidly changing landscape of medicine.</u>

As I [63] <u>poured</u> through the conference program in the last few weeks, it became clear that another key topic stood out apart from [64] <u>interventional</u> <u>and preventative</u> cardiology. The conference had a dedicated space to digital health this year, with talks on artificial intelligence, machine learning, and wearable technologies. The use of telemedicine or digital health promises a revolution in healthcare utilization and screening of high-risk undiagnosed individuals. It's as easy as having an app on your smartphone that can measure your blood pressure or a wristwatch that can [65] <u>tell time</u> and send alerts to you or your physician.

The Apple heart study was a frequent topic of conversation as it showed the feasibility of using the Apple Watch to detect atrial fibrillation in the general population. Out of 400,000 individuals, 0.5% were detected with atrial fibrillation, later confirmed by the physician during follow-up. On September 10th, Apple Inc launched three additional healthcare [66] studies: enabling sharing of healthcare data between individuals and researchers.

Sounds exciting, [67] <u>and</u> not everyone is thrilled at the prospect of sharing healthcare data widely.

[68] There are totally some giant red flags raised by the involvement of Amazon, Google, and Apple because of concerns around privacy of healthcare data. There are also multiple concerns about losing patient-physician contact and that cardiologists will become obsolete. Professor Martin Cowie (Imperial College London) suggests [69] they're not all black and white, and the role of the cardiologist is simply changing. Even the National Health Service (NHS) in the UK [70] is encouraging citizens to try an app which can triage patients as an alternative to the NHS advice telephone line. Recent clinical trials have evaluated the benefit of remotely monitoring patients with heart failure using wrist-based sensors. Professor Gerhard Hindricks (Leipzig University) told us that some studies reported a benefit to patients, in terms of a reduction in unscheduled physician visits, and others showed no benefit or harm to the patients. Hindricks suggested this is due to a difference in processes and systems of data management, proposing centralized systems for multi-center collaborations in remote monitoring trials.

CC-BY License can be found at https://creativecommons.org/licenses/by/4.0.

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



Copyright © 2022 Classic Learning Initiatives, LLC. All Rights Reserved. CLT8 Practice Test.

#### 61. are discussing

- A) NO CHANGE
- B) being discussed
- C) to discuss
- D) to have discussed

62. Which of the following choices represents the clearest and most concise way to convey all of the information in the sentence?

This year, I joined the European Society of Cardiology's (ESC) annual congress to learn how the field of cardiology in sunny Paris is evolving within the rapidly changing landscape of medicine.

#### A) NO CHANGE

B) This year, I joined in sunny Paris to learn how the European Society of Cardiology's (ESC) annual congress, the field of cardiology, is evolving within the rapidly changing landscape of medicine.

C) This year, I joined the field of cardiology in sunny Paris to learn how the European Society of Cardiology's (ESC) annual congress within the rapidly changing landscape of medicine is evolving.

D) This year, I joined the European Society of Cardiology's (ESC) annual congress in sunny Paris to learn how the field of cardiology is evolving within the rapidly changing landscape of medicine.

#### 63. poured

- A) NO CHANGE
- B) pored
- C) pared
- D) parroted

#### 64. interventional and preventative

- A) NO CHANGE
- B) interventional and prevention
- C) intervention and preventative
- D) intervention and preventatively

#### 65. tell time

- A) NO CHANGE
- B) detect changes in your heartbeat
- C) connect to an appointment-reminder app
- D) light up in the dark

#### 66. studies: enabling

- A) NO CHANGE
- B) studies—enabling
- C) studies enabling
- D) studies; enabling

#### 67. and

- A) NO CHANGE
- B) but
- C) so
- D) therefore

68. Which of the following choices best matches the tone of the passage?

There are totally some giant red flags raised by the involvement of Amazon, Google, and Apple because of concerns around privacy of healthcare data.

#### A) NO CHANGE

- B) The involvement of Amazon, Google, and Apple is raising red flags due to concerns surrounding privacy of healthcare data
- C) There are some red flags raised by the involvement of Amazon, Google, and Apple due to concerns around privacy of healthcare data, am I right?
- D) So you should know that there are some red flags raised by the involvement of Amazon, Google, and Apple due to concerns around privacy of healthcare data.

#### 69. they're not

- A) NO CHANGE
- B) it's not
- C) one is not
- D) you are not

#### 70. is

- A) NO CHANGE
- B) are
- C) be
- D) being



# Modern/Influential Thinkers

This passage is adapted from Dwight D. Eisenhower's "Atoms for Peace" speech, first given on December 8, 1953, at the United Nations General Assembly in New York, New York.

On July 16, 1945, the United States set off the [71] world first atomic explosion.

Since that date in 1945, the United States of America has conducted [72] <u>forty-two-test explosions</u>. Atomic bombs today are more than twenty-five times as powerful as the weapons with which the atomic age dawned, while hydrogen weapons are in the ranges of millions of tons of TNT equivalent.

[73] Weapons of such a devastating nature naturally raise questions of ethics in war. In the first place, the secret is possessed by our [74] friends and allies, Great Britain and Canada, whose scientific genius made a tremendous contribution to our original discoveries and the designs of atomic bombs. The secret is also known by the Soviet Union. If, at one time, the United States possessed what might have been called a monopoly of atomic power, that monopoly [75] seized to exist several years ago.

Therefore, although our earlier start has permitted us to accumulate what is today a great quantitative advantage, the atomic realities of today comprehend two facts of even greater significance.

[76] One, the knowledge now possessed by several nations will eventually be shared by others—possibly all others. Second, even a vast superiority in numbers of weapons, and a consequent capability of devastating retaliation, is no preventive of itself against the fearful material damage and toll of human lives that would be inflicted by surprise aggression. [77] The free world, at least dimly aware of these facts, has naturally embarked on a large program. That program will be accelerated and expanded.

But let no one think that the expenditure of vast sums for weapons and systems of defense [78] <u>had guaranteed</u> absolute safety for the cities and citizens of any nation. The awful arithmetic of the atomic bomb does not permit of any such easy solution. Even against the most powerful defense, an aggressor in possession of the effective minimum number of atomic bombs for a surprise attack could probably place a sufficient number of his bombs on the chosen targets to cause hideous damage.

So my country's purpose is to help us move out of the dark chamber of horrors into the light, to find a way by which [79] the minds of men, men's hopes, the souls of men everywhere can move forward toward peace and happiness and well-being.



[80] It's super obvious to me that we must not lack patience in this quest. I know that many steps will have to be taken over many months before the world can look at itself one day and truly realize that a new climate of mutually peaceful confidence is abroad in the world. But I know, above all else, that we must start to take these steps now

This passage has been excerpted and adapted from the original, including minor punctuation changes, spelling changes, and other modifications that have not substantially changed content or intent.



#### 71. world

- A) NO CHANGE
- B) worlds
- C) world's
- D) worlds'
- 72. forty-two-test explosions.
  - A) NO CHANGE
  - B) forty-two test explosions.
  - C) forty two-test explosions.
  - D) forty two test explosions.
- 73. Weapons of such a devastating nature naturally raise questions of ethics in war.
  - A) NO CHANGE
  - B) Fortunately, the United States is the only country yet to have harnessed this power.
  - C) It took many years of arduous research and development to produce such weapons.
  - D) But the dread secret and the fearful engines of atomic might are not ours alone.
- 74. friends and allies, Great Britain and Canada, whose scientific
  - A) NO CHANGE
  - B) friends and allies, Great Britain, and Canada, whose scientific
  - C) friends and allies, Great Britain and Canada whose scientific
  - D) friends and allies, Great Britain and Canada whose, scientific

#### 75. seized

- A) NO CHANGE
- B) ceased
- C) ceded
- D) seeded

#### 76. One

- A) NO CHANGE
- B) However
- C) First
- D) Thus
- 77. Which of the following choices represents the clearest and most concise way to convey all of the information in the sentence?

The free world, at least dimly aware of these facts, has naturally embarked on a large program.

- A) NO CHANGE
- B) The free world has naturally embarked on a large program at least dimly aware of these facts.
- C) The free world, at least dimly aware of these facts, has naturally embarked on a large program of warning and defense systems.
- D) The free world, of warning and defense systems, has naturally embarked on a large program at least dimly aware of these facts.

#### 78. had guaranteed

- A) NO CHANGE
- B) can guarantee
- C) will have guaranteed
- D) was guaranteeing

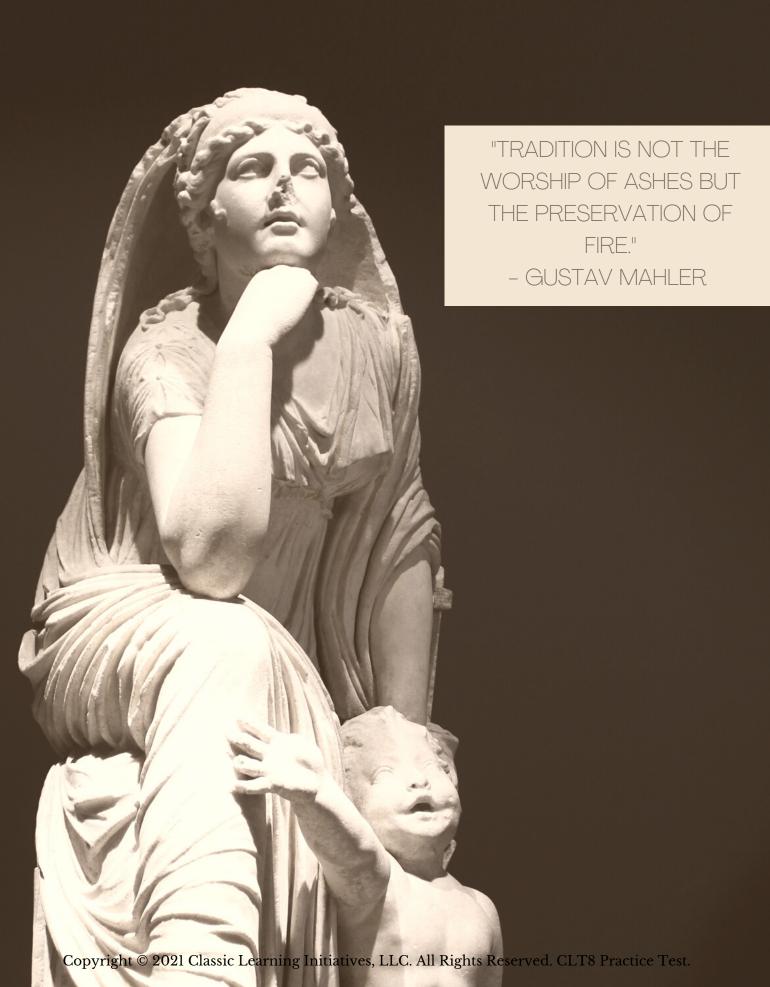
79. the minds of men, men's hopes, the souls of men

- A) NO CHANGE
- B) men's minds, men's hopes, the souls of men
- C) men's minds, the hopes of men, the souls of men
- D) the minds of men, the hopes of men, the souls of men

80. Which of the following choices best matches the tone of the passage?

It's super obvious to me that we must not lack patience in this quest.

- A) NO CHANGE
- B) We have to be patient in this quest, okay?
- C) I totally know that we can't lack patience in this quest.
- D) In this quest, I know that we must not lack patience.



## Section III

# Quantitative Reasoning

### Instructions

You will have 50 minutes to complete Section III. Answer each of the questions (40 total) to the best of your ability. You may not use a calculator for the math portion of this exam. Keep in mind that accompanying figures are NOT necessarily drawn to scale. You may use any of the following formulas to help you in your calculations.

#### Math Formulas:

Area of a circle  $=\pi r^2$ , where r is the radius of the circle

Circumference of a circle  $=2\pi r$ , where r is the radius of the circle

There are 360 degrees in a circle.

There are  $2\pi$  radians in a circle.

Volume of a sphere =  $\frac{4}{3}r^3$ , where r is the radius of the sphere

Surface area of a sphere = $4\pi r^2$ , where r is the radius of the sphere

Area of a rectangle = length x width

Area of a triangle =  $\frac{1}{2}$  (base x height)

The sum of the measures of the interior angles of a triangle is 180°.

Pythagorean theorem (for a right triangle): If a, b, and c are the side lengths of the triangle, and c is the hypotenuse, then  $a^2 + b^2 = c^2$ .

 $30^{\circ}$ - $60^{\circ}$ - $90^{\circ}$  triangles have side lengths in a ratio of  $1:\sqrt{3}:2$ , corresponding to their angle.

 $45^{\circ}$ - $45^{\circ}$ - $90^{\circ}$  triangles have side lengths in a ratio of 1 : 1 :  $\sqrt{2}$ , corresponding to their angle.

Copyright © 2021 Classic Learning Initiatives, LLC. All Rights Reserved. CLT8 Practice Test.

81. Which of the following could be the next term in the arithmetic sequence below?

2, 5, 8, 11, ?, ...

- A) 12
- B) 14
- C) 16
- D) 18

82. The point (-3,0) lies on which axis in the (x,y)-coordinate plane?

- A) The x-axis
- B) The y-axis
- C) Both the x-axis and the y-axis
- D) Neither the x-axis nor the y-axis

83. A square has an area of 25 m<sup>2</sup>. Which of the following is true?

- A) The perimeter of the square is 20 m.
- B) The side length of the square is 5 m.
- C) Both A and B are true.
- D) Neither A nor B is true.

84. Which two of the following shapes could be similar?



J



2



3



4

- A) 1 and 2
- B) 1 and 3
- C) 2 and 3
- D) 2 and 4

85. Which of the following is equivalent to  $3(2-5)+3\times 7$ ?

- A) -42
- B) 12
- C) 22
- D) 28

86.	<ul> <li>Two equilateral triangles are congruent. Which of the following is false?</li> <li>A) The measure of each of their interior angles is 60°.</li> <li>B) The perimeters of the two triangles are equal.</li> <li>C) The areas of the two triangles are not equal.</li> <li>D) The base-to-height ratios of the two triangles are equal.</li> </ul>
87.	The sum of the perimeters of two congruent equilateral triangles is 36 inches. What is the measure of one of the sides of these triangles?  A) 6 inches B) 8 inches C) 9 inches D) 12 inches
88.	Each storage room in a storage facility can hold a maximum of 80 boxes of a certain size. If a family needs to store 220 boxes of that size before their move, how many storage rooms in that facility will they need?  A) 2 B) 3 C) 4 D) 5
89.	A biologist finds a new species of toad native to a local lake. If the biologist then determines that, out of the total population of 200 toads of this species, 50 are speckled, 50 are solid-colored, and 100 are striped, what is the chance that a randomly selected toad from this species is speckled? (Note: No toad is both speckled and striped.)  A) 25% B) 50% C) 75% D) 100%
90.	A teacher surveys his class to find out how many students have a pet dog, cat, or neither at home. His results show that the number of students with a dog, cat, or neither can be described with the ratio 2:1:1, respectively. If there are 6 students with a pet cat, how many total students are in the class? (Note: No student has both a dog and a cat.)  A) 9 students B) 14 students C) 24 students D) 36 students

91. Which of the following lines in the (x, y)-coordinate plane has a positive slope?

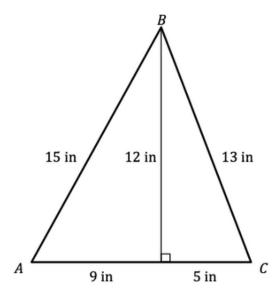
A) 
$$y = 2x - 5$$

B) 
$$y = -\frac{1}{2}x - 5$$

C) 
$$y = -\frac{1}{2}x + 7$$

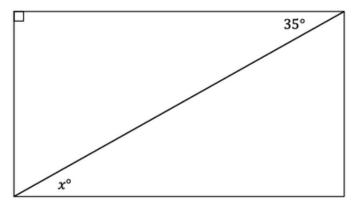
D) 
$$y = -2x + 10$$

- 92. Square A has a side length of 6 cm and Square B has a side length of 8 cm. What is the difference between the measure of the area of Square A and the measure of the area of Square B?
  - A) 2 cm<sup>2</sup>
  - B) 12 cm<sup>2</sup>
  - C) 28 cm<sup>2</sup>
  - D) 36 cm<sup>2</sup>
- 93. What is the area of  $\triangle ABC$  in the figure below? (Note: The figure is not necessarily drawn to scale).



- A) 42 in<sup>2</sup>
- B)  $84 \text{ in}^2$
- C)  $126 \text{ in}^2$
- D) 168 in<sup>2</sup>

- 94. If m is an odd negative integer, which of the following describes  $-m^2$ ?
  - A) An odd positive integer
  - B) An even positive integer
  - C) An odd negative integer
  - D) An even negative integer
- 95. In  $\triangle ABC$ , AB = 15 in, BC = 13 in, and AC = 10 in. Which angle in the triangle has the largest measure?
  - A) ∠A
  - B) ∠B
  - C) ∠C
  - D) It is impossible to determine from the given information.
- 96. What is the value of x in the rectangle below? (Note: The figure is not necessarily drawn to scale.)



- A) x = 35
- B) x = 45
- C) x = 55
- D) x = 65
- 97. In a pet store, different kinds of pets are sold. Of the pets that the store currently has,  $\frac{1}{3}$  of the pets are rabbits and  $\frac{1}{3}$  are cats. The rest are birds, ferrets, and guinea pigs. There are 2 birds for every guinea pig and an equal number of ferrets and guinea pigs. Based on this information, which of the following is NOT true?
  - A) Ferrets make up  $\frac{1}{9}$  of the store's pets.
  - B) Cats and birds combined make up  $\frac{1}{2}$  of the store's pets.
  - C) Ferrets and guinea pigs combined make up  $\frac{1}{6}$  of the store's pets.
  - D) Birds and guinea pigs combined make up  $\frac{1}{4}$  of the store's pets.

98	If $ 2 + x^3  > 5$ , which of the following could be the value of x?
30.	If $ 2+x  > 3$ , which of the following could be the value of $x$ :
	A) -2
	B) -1
	C) 0
	D) 1
99.	Which transformation of point $A$ (-2,3) results in the image $A'$ (2,3)?
	A) A horizontal shift of +2
	B) A reflection across the y-axis
	C) A rotation of 90° clockwise about the origin
	D) A reflection across the line $y = x$
100.	Annabelle's English class has 20% more students than her social studies class. If her social studies class has 20 students, how many students are in her English class?
	A) 18 students
	D) 22 -t1t-
	B) 22 students
	C) 24 students D) 42 students
101.	<ul> <li>C) 24 students</li> <li>D) 42 students</li> </ul> Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid.
101.	C) 24 students D) 42 students
101.	C) 24 students D) 42 students Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?
101.	C) 24 students D) 42 students Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid.
101.	<ul> <li>C) 24 students</li> <li>D) 42 students</li> <li>Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?</li> <li>A) 30 in</li> </ul>
101.	<ul> <li>C) 24 students</li> <li>D) 42 students</li> <li>Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?</li> <li>A) 30 in</li> <li>B) 32 in</li> </ul>
	<ul> <li>C) 24 students</li> <li>D) 42 students</li> <li>Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?</li> <li>A) 30 in</li> <li>B) 32 in</li> <li>C) 40 in</li> <li>D) 56 in</li> </ul>
	<ul> <li>C) 24 students</li> <li>D) 42 students</li> <li>Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?</li> <li>A) 30 in</li> <li>B) 32 in</li> <li>C) 40 in</li> <li>D) 56 in</li> <li>How many integers between 10 and 2,000 (inclusive) meet both of the conditions given in the statements below?</li> <li>1. The integer is a factor of 100.</li> </ul>
	C) 24 students D) 42 students  Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?  A) 30 in B) 32 in C) 40 in D) 56 in  How many integers between 10 and 2,000 (inclusive) meet both of the conditions given in t statements below?
	<ul> <li>C) 24 students</li> <li>D) 42 students</li> <li>Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?</li> <li>A) 30 in</li> <li>B) 32 in</li> <li>C) 40 in</li> <li>D) 56 in</li> <li>How many integers between 10 and 2,000 (inclusive) meet both of the conditions given in the statements below?</li> <li>The integer is a factor of 100.</li> </ul>
	C) 24 students D) 42 students  Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?  A) 30 in B) 32 in C) 40 in D) 56 in  How many integers between 10 and 2,000 (inclusive) meet both of the conditions given in t statements below?  1. The integer is a factor of 100. 2. The product of the digits is even.  A) 5 B) 7
	C) 24 students D) 42 students  Three congruent equilateral triangles are arranged so that they form an isosceles trapezoid. the perimeter of one of the triangles is 24 in, what is the perimeter of the trapezoid?  A) 30 in B) 32 in C) 40 in D) 56 in  How many integers between 10 and 2,000 (inclusive) meet both of the conditions given in t statements below?  1. The integer is a factor of 100. 2. The product of the digits is even.  A) 5

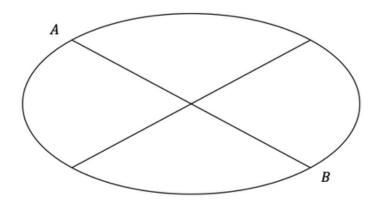
1	03. A circle has a diameter of 12 cm. What is the circumference of the circle?
	<ul> <li>A) 12π cm</li> <li>B) 24π cm</li> <li>C) 36π cm</li> <li>D) 144π cm</li> </ul>
1	<ul> <li>O4. A molecule of potassium sorbate contains one potassium atom, seven hydrogen atoms, six carbon atoms, and two oxygen atoms. If a sample of potassium sorbate contains 56 hydrogen atoms, how many TOTAL potassium and oxygen atoms does that sample have?</li> <li>A) 3</li> <li>B) 24</li> <li>C) 51</li> </ul>
	C) 51 D) 64
1	05. Planet Z has an atmosphere with 25% nitrogen. Planet Y's atmosphere contains 30% oxygen and 50% nitrogen. Planet X's atmosphere consists of 40% carbon dioxide, 30% oxygen, and 30% nitrogen. An astrophysicist predicts that Planet Z, Planet Y, and Planet X will each increase their nitrogen levels by 50% over the next millennium. If her prediction is accurate, which of the following would be necessarily true of the three planets' atmospheres after the next millennium?
	<ul> <li>I. Planet Z will have an atmosphere with 75% nitrogen.</li> <li>II. Planet Y will still have proportionally the highest level of nitrogen out of all three planets.</li> <li>III. Planet X's atmosphere will lose about 15% of its oxygen over the next millennium.</li> </ul>
	A) I only B) II only C) III only D) I and II only
1	06. A set of four positive consecutive integers includes three prime numbers. What is the sum of this set?
	A) 6 B) 10 C) 14 D) 26

107. A student analyzes the velocities of four different cars. Each car starts with an initial velocity of zero,  $v_0$ , and has a constant acceleration of a. The velocity v at time t is given by the equation:

$$v = v_o + at$$

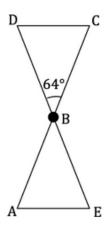
The student notes that Car A's velocity and Car B's velocity are the same for some t > 0. Car C's acceleration was three times the acceleration of Car A and of Car B at time t. Car D's velocity was  $\frac{1}{6}$  that of Car C at time t. Which of the following can be concluded?

- A) Car A and Car D have the same acceleration.
- B) Car D's speed is twice the speed of Car B.
- C) The ratio of the velocities of Car A to Car D to Car C is 2:1:6.
- D) The percent increase from the velocity of Car C to the velocity of Car A is 300%.
- 108. If  $\phi$  is defined such that  $a\phi b = 3a^2 b$ , which of the following is equivalent to  $(-1)\phi(-5)$ ?
  - A) -2
  - B) 2
  - C) 8
  - D) 14
- 109. A park's paths are shown in the diagram below. If a dog walker starts at Point A and wants to move to Point B, how many unique ways can he arrive at Point B by using the park's paths if he does not retread any path in the same journey twice or re-pass Point A?



- A) 3
- B) 7
- C) 9
- D) 10

- 110. How many integers between 100 and 120 (inclusive) meet both of the conditions given in the statements below?
  - 1. The sum of the digits of the integer is greater than 5.
  - 2. The integer is prime.
    - A) 0
    - B) 2
    - C) 3
    - D) 5
- 111. Two congruent isosceles triangles,  $\triangle DCB$  and  $\triangle EAB$ , meet at a point B. If BD = BC, AB = BE, and  $\angle DBC = 64^\circ$ , what is the measure of  $\angle A$ ? (Note: The figure is not necessarily drawn to scale.)



- A) 58°
- B) 59°
- C) 63°
- D) It is impossible to determine from the given information.
- 112. A student proposes the following rule:

All isosceles triangles are also equilateral triangles.

Which of the following is a counterexample that disproves the above statement?

- A) A triangle with angles measuring 20°, 50°, and 110°
- B) A triangle with angles measuring 60°, 60°, and 60°
- C) A triangle with angles measuring 30°, 60°, and 90°
- D) A triangle with angles measuring 55°, 55°, and 70°

- 113. What is the slope of the line in the (x, y)-coordinate plane defined by the equation 3x - 5 = 0?
  - A) 0
  - B) 3
  - C)  $\frac{5}{3}$
  - The slope is undefined.
- 114. If the equation  $x^2 + bx + 4 = 0$  has only one solution, and if b is an integer, which of the following could be the value of b?
  - A) 2
  - B) 4
  - C) 6
  - D) 8
- 115. What is the x-coordinate of the solution of the system of equations below?

$$x + y = 10$$

$$-x + 2y = 2$$

- A) -6
- B) 4
- C) 6
- D) 8
- 116. Which of the following is an equation of a line that is perpendicular to the line in the (x, y)coordinate plane defined by the equation below?

$$y = -3x + 7$$

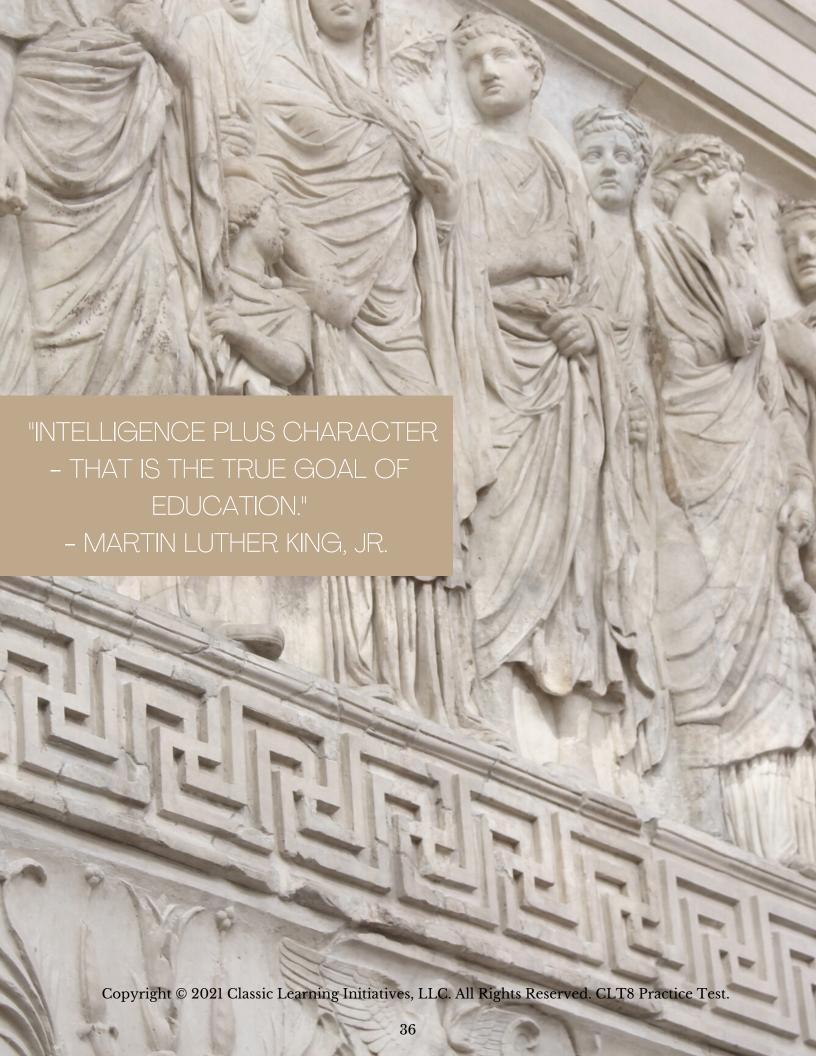
- A) y = -3x 7B) y = 3x + 7C)  $y = -\frac{1}{3}x + 7$
- D)  $y = \frac{1}{3}x 7$
- 117. Which of the following expressions is equivalent to  $\frac{x^7y^3}{x^5y^2}$ ?
  - A)  $\frac{y}{x^2}$
  - B)  $x^{35}y^6$
  - C)  $x^{\frac{7}{5}}y^{\frac{3}{2}}$
  - D)  $x^2y$

- 118. A poster is delivered in a right cylindrical container made of cardboard, with a plastic top and a plastic bottom. If the radius of the top and bottom of the container is 10 centimeters and the height of the container is 100 centimeters, what is the surface area of the cardboard portion of the container?
  - A) 1000 square centimeters
  - B) 2000 square centimeters
  - C)  $1000\pi$  square centimeters
  - D)  $2000\pi$  square centimeters
- 119. Let c be an integer. If c > 0, d > c, and d is prime, then which of the following must be true of  $(cd)^2$ ?
  - A)  $(cd)^2 < c$
  - B)  $(cd)^2 < c + d$
  - C)  $(cd)^2 > \frac{d}{c}$ D)  $(cd)^2 > d^3c$
- 120. An isosceles triangle has one interior angle that measures 20°. What are the measures of its other two interior angles?
  - A) 20° and 140°
  - B) 35° and 35°
  - C) 80° and 80°
  - D) It is impossible to determine from the given information.

#### **Answer Key**

1.	A	41.	В
2.	C	42.	В
3.	В	43.	A
4.	C	44.	C
5.	A	45.	D
6.	В	46.	C
7.	D	47.	В
8.	C	48.	A
9.	A	49.	C
10.	В	50.	В
11.	В	51.	В
12.	A	52.	D
13.	C	53.	A
14.	В	54.	C
15.	D	55.	В
16.	C	56.	В
17.	D	57.	В
18.	D	58.	A
19.	В	59.	D
20.	D	60.	C
21.	C	61.	C
22.	D	62.	D
23.	D	63.	В
24.	В	64.	A
25.	C	65.	В
26.	A	66.	C
27.	D	67.	В
28.	C	68.	В
29.	C	69.	В
30.	D	70.	A
31.	A	71.	C
32.	C	72.	В
33.	В	73.	D
34.	D	74.	A
35.	A	75.	В
36.	В	76.	С
37.	C	77.	C
38.	D	78.	В
39.	В	79.	D
40.	С	80.	D

81. B 82. Α 83.  $\mathbf{C}$ 84. D В 85. 86.  $\mathbf{C}$ 87. Α 88. В 89. Α 90. C 91. Α 92.  $\mathbf{C}$ 93. В 94. C 95. C 96. A 97. A 98. A 99. B 100. C 101. C 102. A 103. A 104. B 105. B 106. C 107. C 108. C 109. C 110. B 111. A 112. D 113. D 114. B 115. C 116. D 117. D 118. D 119. C 120. D





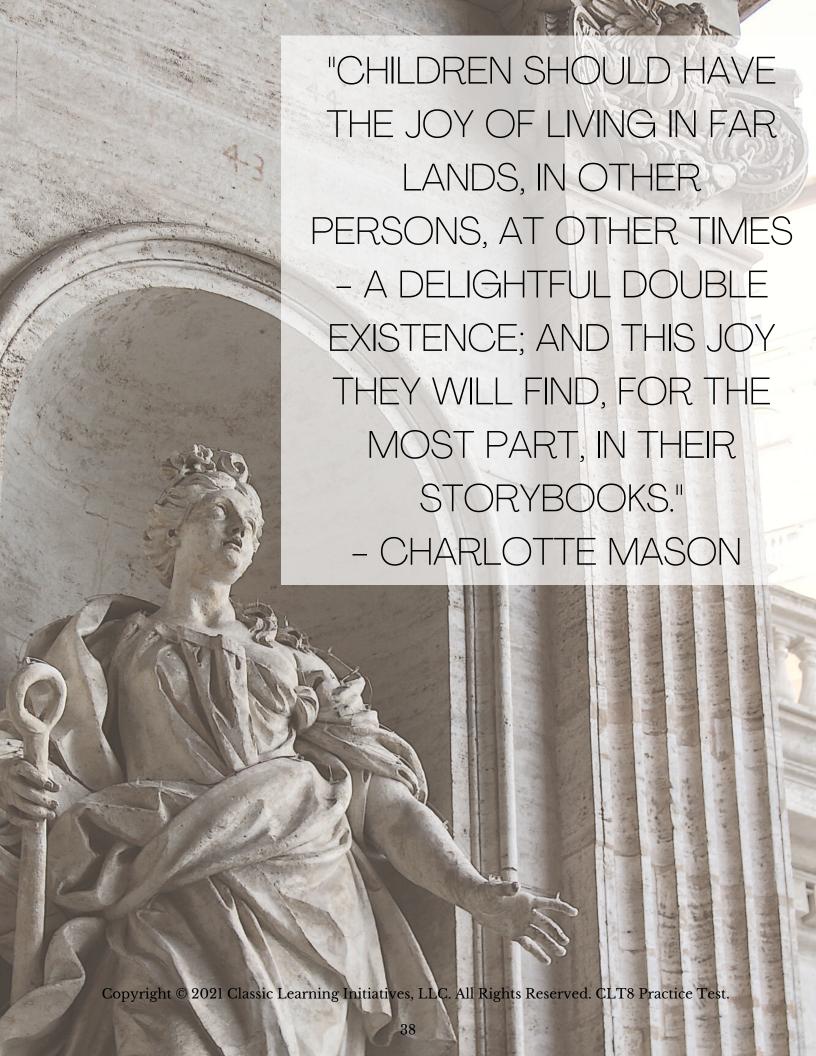
# Re-Introducing Truth, Beauty, and Goodness To Modern Education

At Classic Learning Test, we strive to provide assessments steeped in content that is intellectually richer and more rigorous than other standardized tests and college entrance exams. Our author bank—from which we draw our exam material—is composed of men and women who have made invaluable contributions to culture and history. Ultimately, CLT seeks to serve you in your mission to provide a richer, more meaningful education to those who matter most.



### The Board of Academic Advisors

The CLT Board consists of college presidents & administrators, secondary school heads of schools, and nationally recognized leaders in education.





Copyright © 2015 - 2022 Classic Learning Initiatives, LLC. All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of Classic Learning Initiatives, LLC.

Classic Learning Initiatives and CLT are registered trademarks of Classic Learning Initiatives, LLC.

Copyright © 2022 Classic Learning Initiatives, LLC. All Rights Reserved. CLT8
Practice Test