



6 A cone is 10 inches deep and has a radius at the base of 4 inches. The formula for the volume of a right circular cone is  $V = \frac{1}{3} \pi r^2 h$ . What is the volume of the cone?

1 point

- (A) 167.55 square inches  
(B) 167.55 cubic inches  
(C) 50.27 cubic inches  
(D) 502.65 cubic inches

7 A rectangle has dimensions of 22 inches by 11 1/2 inches. Its perimeter is:

1 point

- (A) 65 inches  
(B) 67 inches  
(C) 66 inches  
(D) 64 inches

No calculator allowed.

8 Which of the following is the same as .000 000 000 000 000 065 395 in scientific notation?

1 point

- (A)  $6.5395 \times 10^{-17}$   
(B)  $65.395 \times 10^{-16}$   
(C)  $653.95 \times 10^{-19}$   
(D)  $6.5395 \times 10^{17}$

9 Which of the following is the same as .000 000 000 000 000 095 242 in scientific notation?

1 point

- (A)  $9.5242 \times 10^{-17}$   
(B)  $9.5242 \times 10^{-16}$   
(C)  $9.5242 \times 10^{16}$   
(D)  $9.5242 \times 10^{17}$

10 A store has a sale of 45% off the list price of everything. Tom buys a TV listed at \$1000 and a remote listed at \$30. If there is a 15% sales tax on the purchase, what is the total bill?

1 point

- (A) \$758.50  
(B) \$759.00  
(C) \$765.00  
(D) \$760.50

No calculator allowed

11 The decimal equivalent of 49.025%, to the nearest tenth, is [.....]

1 point

12 Simplify:  $4(x + x^2 + 3x^2 - 6x)$

1 point

- (A)  $-20x + 16x^2$   
(B)  $-8X^2$   
(C)  $20x + 16X^2$   
(D)  $20x + 16x$

13 Consider two equations  $y = 9x + 3$  and  $y = -8x + 2$ . If these two equations were plotted on the same graph, they would meet at the point  $(x, y)$ . At that point, the slopes of the two lines would be

1 point

- (A) Different from each other  
(B) Undefined  
(C) Zero  
(D) Equal to each other

14 Consider two equations

$$2x = 5 + Y$$
$$3x + y = 10$$

Complete the following tables of values for these equations:

$$2x = 5 + y$$

x	0	1	2
	-		-

y			
	5		1

$$3x + y = 10$$

x	0	2	
y	10	4	-2

1 point

15 If  $x - 6(x + 2) = 2$ , what is  $x$ ?

1 point

- (A) -1  
(B) 1  
(C) -2  
(D) 2

16 Factor the polynomial completely:  $x^2 - 9$

1 point

- (A)  $(x + 3)(x + 3)$   
(B)  $(x - 3)(x - 3)$   
(C)  $(x - 9)(x + 1)$   
(D)  $(x + 3)(x - 3)$

17 Consider two equations  $y = 2x + 3$  and  $y = -x + 1$ . If these two equations were plotted on the same graph, they would meet at the point  $(x, y)$ . At that point, the slopes of the two lines would be

1 point

- (A) Zero  
(B) Different from each other  
(C) Undefined  
(D) Equal to each other

18 Factor the polynomial completely:  $x^2 + 2x - 8$

1 point

- (A)  $(x + 2)(x - 4)$   
(B)  $(x + 4)(x - 2)$   
(C)  $(x - 4)(x + 2)$   
(D)  $(x - 2)(x - 4)$

19 Given that a line through point (2, 3) has slope 4, what is the equation of the line?

1 point

- (A)  $y = 4x - 5$  (B)  $y = 4x - 1$   
(C)  $y = 4x + 1$  (D)  $y = 4x + 3$

20 A store has a sale of 15% off the list price of everything. Sarah buys a coat listed at \$120 and a scarf listed at \$30. If there is a 6% sales tax on the purchase, what is the total bill?

1 point

- (A) \$127.20 (B) \$126.00  
(C) \$132.00 (D) \$128.70

21 Anna needs to ride her bike 30 miles to her aunt's house. She rides at an average rate of 10 miles per hour. She has 3 hours to get there. Can she make it on time?

1 point

- (A) Yes, she can make it on time. (B) She will be late by 2 hours.  
(C) She will be late by 1 hour. (D) No, she cannot make it on time.

22 A store has a sale of 30% off the list price of everything. Alice buys a dress listed at \$80 and a hat listed at \$20. If there is a 5% sales tax on the purchase, what is the total bill?

1 point

- (A) \$77.00 (B) \$70.20  
(C) \$84.00 (D) \$66.50

23 How long must a ladder be if it is 15 feet high on the wall of a building and the foot of the ladder is 8 feet from the building?

1 point

- (A) 21 feet (B) 5 feet  
(C) 17 feet (D) 12 feet

24 If you flip a fair coin 1500 times, how many tails would you expect to get?

1 point

- (A) 1000 (B) 500  
(C) 1500 (D) 750

25 A warehouse store has a sale of 30% off the list price of everything. David buys a blender listed at \$59.95 and a fry pan listed at \$12.47.

If David pays with a \$100 bill, what is her change?

1 point

- (A) \$45.76 (B) \$50.00  
(C) \$44.74. (D) \$65.44.

26 Which sentence uses correct parallel structure?

1 point

- (A) He is working hard, hardly, and hardly works.  
(B) They are laughing, joking, and to have fun.  
(C) The dog is barking, jumping, and likes to chase its tail.  
(D) She is singing, dancing, and to play the piano.

27 Correct the following sentence for parallel structure: 'The company focuses on increasing sales, improving customer service, and expand globally.'

1 point

- (A) The company focuses on increasing sales, improving customer service, and expanding globally.
- (B) The company focuses on increasing sales, improving customer service, and expanded globally.
- (C) The company focuses on increasing sales, improving customer service, and to expand globally.
- (D) The company focuses on increasing sales, to improve customer service, and expanding globally.

28 Sarah and \_\_\_ went to the store to buy groceries.

1 point

- (A) me
- (B) mine
- (C) I
- (D) myself

29 Which sentence uses correct punctuation?

1 point

- (A) The cat that, was hiding under the bed, finally came out.
- (B) The cat, that was hiding under the bed, finally came out.
- (C) The cat that was hiding under the bed finally came out.
- (D) The cat that was hiding under the bed, finally came out.

30 Nobody has seen \_\_\_\_\_ since the meeting last week.

1 point

- (A) their
- (B) his
- (C) her
- (D) its

31 Which sentence uses correct punctuation?

1 point

- (A) The book which I borrowed from the library, was very informative.
- (B) The book which, I borrowed from the library, was very informative.
- (C) The book which I borrowed from the library was very informative.
- (D) The book, which I borrowed from the library, was very informative.

32 Neither of the options \_\_\_\_\_ suitable for the project.

1 point

- (A) have been
- (B) is
- (C) are
- (D) were

33 Which sentence uses correct subject-verb agreement?

1 point

- (A) She playing tennis every Sunday.
- (B) She plays tennis every Sunday.
- (C) She play tennis every Sunday.
- (D) She play tennis every Sundays.

34 Choose the sentence that correctly uses a semicolon.

1 point

- (A) I like ice cream; but not chocolate.
- (B) She loves painting; and he loves drawing.
- (C) He went to the store; bought some milk.

Ⓓ They were tired; however, they continued working.

**35 Which sentence contains a dangling modifier?**

1 point

- Ⓐ Sitting on the bench, the birds chirped happily.
- Ⓑ Dancing in the rain, the music played softly.
- Ⓒ Cooking breakfast, the smell filled the kitchen.
- Ⓓ Painting a picture, the colors blended beautifully.

**36 Which sentence uses correct parallel structure?**

1 point

- Ⓐ He likes to run, swim, and biking.
- Ⓑ She is smart, funny, and enjoys to read.
- Ⓒ We will cook, eat, and relax.
- Ⓓ They were laughing, joking, and to play games.

**37 Which sentence is grammatically correct? A. She is speaking with her friend on the phone right now. B. She is speak with her friend on the phone right now. C. She speaking with her friend on the phone right now. D. She speaks with her friend on the phone right now.**

1 point

- Ⓐ She speaks with her friend on the phone right now.
- Ⓑ She speaking with her friend on the phone right now.
- Ⓒ She is speak with her friend on the phone right now.
- Ⓓ She is speaking with her friend on the phone right now.

**38 \_\_\_\_\_ and John are going to the party together.**

1 point

- Ⓐ Herself
- Ⓑ Her
- Ⓒ She
- Ⓓ Hers

**39 Identify the direct object in the sentence: 'They built a sandcastle on the beach.'**

1 point

- Ⓐ sandcastle
- Ⓑ beach
- Ⓒ built
- Ⓓ They

**40 What is a clause?**

1 point

- Ⓐ A group of words with a subject and predicate
- Ⓑ A group of words without a subject
- Ⓒ A single word
- Ⓓ A group of words without a verb

**41 Which sentence uses correct subject-verb agreement?**

1 point

- Ⓐ They enjoys watching movie together.
- Ⓑ They enjoy watching movie together.
- Ⓒ They enjoys watching movies together.
- Ⓓ They enjoy watching movies together.

**42 Identify the prepositional phrase in the following sentence: They went to the beach during the summer.**

1 point

- (A) To the beach
- (B) During the summer
- (C) They went
- (D) The beach

**43 What is the direct object in the following sentence: 'She baked cookies for the party.'?**

1 point

**44 Which sentence correctly uses a semicolon?**

1 point

- (A) He woke up early; to catch the sunrise.
- (B) They went to the zoo; and saw the lions.
- (C) I have a dog; his name is Max.
- (D) She likes to paint; and draw.

**45 Choose the sentence that corrects the parallel structure error: 'The teacher asked the students to read the book, answer the questions, and to write an essay.'**

1 point

- (A) The teacher asked the students to read the book, answering the questions, and writing an essay.
- (B) The teacher asked the students to read the book, answering the questions, and to write an essay.
- (C) The teacher asked the students to read the book, to answer the questions, and writing an essay.
- (D) The teacher asked the students to read the book, answer the questions, and write an essay.

**46 Which sentence contains a dangling modifier?**

1 point

- (A) Laughing uncontrollably, the joke was hilarious.
- (B) Playing the piano, the dog barked loudly.
- (C) Riding a bike, the park was peaceful.
- (D) Skiing down the slope, the snow was fresh.

**47 Which sentence correctly uses a semicolon?**

1 point

- (A) The teacher explained the lesson; then gave an assignment.
- (B) She is going to the party; with her sister.
- (C) He loves to play soccer; his favorite team is Real Madrid.
- (D) I enjoy reading books; and watching movies.

**48 Correct the following sentence for parallel structure: 'The team must work together, communicate effectively, and problem solving.'**

1 point

- (A) The team must work together, communicating effectively, and problem solving.
- (B) The team must work together, to communicate effectively, and problem solve.

- Ⓒ The team must work together, communicate effectively, and problem solve.
- Ⓓ The team must work together, to communicate effectively, and problem solving.

**49 Identify the sentence that correctly uses an Oxford comma.**

1 point

- Ⓐ I need to buy milk, bread and cheese.
- Ⓑ They visited Paris, Rome, and Berlin.
- Ⓒ He bought apples, oranges and bananas.
- Ⓓ She invited her parents, her friends and her colleagues.

**50 Which sentence correctly uses a semicolon?**

1 point

- Ⓐ He finished his work; then went home.
- Ⓑ I like to eat pizza; and pasta.
- Ⓒ They went for a hike; and saw a beautiful waterfall.
- Ⓓ She is studying hard; because she wants to improve her grades.

**51 Which Founding Father wrote 'Common Sense', a pamphlet advocating independence from Britain?**

1 point

- Ⓐ John Adams
- Ⓑ Benjamin Franklin
- Ⓒ Thomas Paine
- Ⓓ Samuel Adams

**52 Which general led the Confederate Army during the American Civil War?**

1 point

- Ⓐ William T. Sherman
- Ⓑ George McClellan
- Ⓒ Robert E. Lee
- Ⓓ Stonewall Jackson

**53 Who was the President of the Confederate States during the American Civil War?**

1 point

- Ⓐ Abraham Lincoln
- Ⓑ Jefferson Davis
- Ⓒ Ulysses S. Grant
- Ⓓ Robert E. Lee

**54 Which amendment was ratified first among the Reconstruction Amendments?**

1 point

- Ⓐ 15th Amendment
- Ⓑ 14th Amendment
- Ⓒ 16th Amendment
- Ⓓ 13th Amendment

**55 Who was the primary diplomat in France during the American Revolution?**

1 point

- Ⓐ Thomas Jefferson
- Ⓑ Alexander Hamilton
- Ⓒ Benjamin Franklin
- Ⓓ John Adams

**56 What was the primary reason for the establishment of the Plymouth Colony?**

1 point

- Ⓐ Military strategy
- Ⓑ Economic opportunities
- Ⓒ Scientific research
- Ⓓ Religious freedom

**57 Who is known as the 'Father of the Constitution'?**

1 point

- (A) George Washington
- (B) James Madison
- (C) Alexander Hamilton
- (D) John Jay

**58 Which famous explorer is credited with discovering America in 1492?**

1 point

- (A) Marco Polo
- (B) Christopher Columbus
- (C) Ferdinand Magellan
- (D) Vasco da Gama

**59 What was the name of the ship that brought the Pilgrims to America?**

1 point

- (A) Mayflower
- (B) Endeavour
- (C) Santa Maria
- (D) Susan Constant

**60 What is the term for the phenomenon where individuals from different cultures come into continuous first-hand contact, resulting in changes in the original cultural patterns of either or both groups?**

1 point

- (A) Cultural relativism
- (B) Cultural diffusion
- (C) Acculturation
- (D) Cultural assimilation

**61 Which landform is created by the deposition of sediment carried by rivers?**

1 point

- (A) Plateau
- (B) Canyon
- (C) Mountain
- (D) Delta

**62 Which landform is formed by the movement of tectonic plates and often results in a long, narrow valley?**

1 point

- (A) Beach
- (B) Volcano
- (C) Delta
- (D) Rift Valley

**63 Which concept involves evaluating other cultures based on the standards of one's own culture?**

1 point

- (A) Cultural diffusion
- (B) Pluralism
- (C) Cultural relativism
- (D) Ethnocentrism

**64 Which concept refers to the process of integrating minority groups into mainstream society while maintaining their unique cultural identities?**

1 point

- (A) Marginalization
- (B) Assimilation
- (C) Segregation
- (D) Integration

**65 Which of the following is a benefit of having industrial zones?**

1 point

- (A) Enhanced tourism
- (B) Economic growth and job creation

Ⓒ Increased residential areas

Ⓓ Improved agricultural productivity

**66 Which of the following is a significant impact of mining activities?**

1 point

- Ⓐ Increase in local wildlife population
- Ⓑ Contamination of water sources
- Ⓒ Reduction in soil erosion
- Ⓓ Improvement in air quality

**67 Which trade route facilitated the exchange of goods between the Roman Empire and China?**

1 point

- Ⓐ Silk Road
- Ⓑ Amber Road
- Ⓒ Incense Route
- Ⓓ Royal Road

**68 What is the term for the amount of money you earn before taxes are taken out?**

1 point

- Ⓐ Taxable income
- Ⓑ Net income
- Ⓒ Gross income
- Ⓓ Disposable income

**69 Which factor does NOT influence consumer behaviour?**

1 point

- Ⓐ Geological factors
- Ⓑ Cultural factors
- Ⓒ Social factors
- Ⓓ Personal factors

**70 What does the term 'BRICS' stand for in the context of emerging economies?**

1 point

- Ⓐ Brazil, Russia, India, China, South Africa
- Ⓑ Bangladesh, Rwanda, Indonesia, Chile, Sweden
- Ⓒ Belgium, Romania, Italy, Canada, Spain
- Ⓓ Bolivia, Russia, Ireland, Colombia, Singapore

**71 What is one potential negative consequence of interventionism?**

1 point

- Ⓐ Enhanced cultural understanding
- Ⓑ Increased trade opportunities
- Ⓒ Improved diplomatic relations
- Ⓓ Resentment and backlash from other countries

**72 What is a common tool used in monetary policy?**

1 point

- Ⓐ Interest rates
- Ⓑ Taxation
- Ⓒ Government spending
- Ⓓ Trade agreements

**73 What is the main function of the World Bank?**

1 point

- Ⓐ To regulate international trade policies
- Ⓑ To provide military aid to countries
- Ⓒ To manage global oil supplies

- Ⓓ To offer financial and technical assistance to developing countries

**74 Which country has the largest economy in the world by GDP?**

1 point

- Ⓐ Germany Ⓑ United States  
Ⓒ Japan Ⓓ China

**75 What does APR stand for?**

1 point

- Ⓐ Annual Payment Rate Ⓑ Annual Percentage Rate  
Ⓒ Annual Purchase Rate Ⓓ Annual Profit Rate

**76 Which branch of government is responsible for making laws?**

1 point

- Ⓐ Executive Ⓑ Legislative  
Ⓒ Administrative Ⓓ Judicial

**77 Which amendment provides the right to keep and bear arms?**

1 point

- Ⓐ Second Amendment Ⓑ First Amendment  
Ⓒ Third Amendment Ⓓ Fourth Amendment

**78 Which activity is NOT considered civic engagement?**

1 point

- Ⓐ Joining a community cleanup Ⓑ Attending a town hall meeting  
Ⓒ Participating in a protest Ⓓ Playing sports with friends

**79 What is the highest court in the United States?**

1 point

- Ⓐ The District Court Ⓑ The Court of Appeals  
Ⓒ The Federal Court Ⓓ The Supreme Court

**80 Which amendment addresses the rights of individuals in civil trials?**

1 point

- Ⓐ Seventh Amendment Ⓑ Sixth Amendment  
Ⓒ Fifth Amendment Ⓓ Eighth Amendment

**81 Which amendment gave Congress the power to levy an income tax?**

1 point

- Ⓐ Twenty-sixth Amendment Ⓑ Nineteenth Amendment  
Ⓒ Sixteenth Amendment Ⓓ Twenty-first Amendment

**82 Which amendment to the U.S. Constitution reserves powers to the states or the people?**

1 point

- Ⓐ Tenth Amendment Ⓑ Fourteenth Amendment  
Ⓒ First Amendment Ⓓ Fifth Amendment

**83 Which branch of the federal government interprets laws?**

1 point

- (A) Judicial
- (B) Administrative
- (C) Executive
- (D) Legislative

**84 What is the law that states that mass is neither created nor destroyed in a chemical reaction?**

1 point

- (A) Law of Definite Proportions
- (B) Law of Conservation of Energy
- (C) Law of Conservation of Mass
- (D) Law of Multiple Proportions

**85 What is the phenomenon called when light bends as it passes from one medium to another?**

1 point

- (A) Refraction
- (B) Reflection
- (C) Diffraction
- (D) Absorption

**86 Which of the following best describes the Law of Conservation of Mass?**

1 point

- (A) Mass can be both created and destroyed
- (B) Mass can be created but not destroyed
- (C) Mass is conserved and remains constant
- (D) Mass can be destroyed but not created

**87 The Law of Conservation of Mass is important for which type of chemical reactions?**

1 point

- (A) Both endothermic and exothermic reactions
- (B) Neither endothermic nor exothermic reactions
- (C) Endothermic reactions only
- (D) Exothermic reactions only

**88 Which thermodynamic law states that the total entropy of an isolated system can never decrease over time?**

1 point

- (A) Third Law
- (B) First Law
- (C) Second Law
- (D) Zeroth Law

**89 Which of Newton's laws can be used to explain the propulsion of a rocket?**

1 point

- (A) Newton's Second Law
- (B) Newton's Third Law
- (C) Newton's First Law
- (D) Newton's Law of Universal Gravitation

**90 Which of Newton's laws explains why passengers lurch forward in a car when it suddenly stops?**

1 point

- (A) Newton's Second Law
- (B) Newton's Third Law

- Ⓒ Newton's First Law
- Ⓓ Newton's Law of Universal Gravitation

**91 Which element has the atomic number 8?**

1 point

- Ⓐ Carbon
- Ⓑ Nitrogen
- Ⓒ Helium
- Ⓓ Oxygen

**92 What happens to light when it passes through a prism?**

1 point

- Ⓐ It gets reflected
- Ⓑ It gets polarized
- Ⓒ It gets absorbed
- Ⓓ It gets dispersed

**93 Which of the following is a product of biotechnology?**

1 point

- Ⓐ Plastic
- Ⓑ Steel
- Ⓒ Concrete
- Ⓓ Antibiotics

**94 Which of the following is NOT a component of the cell theory?**

1 point

- Ⓐ All living organisms are composed of cells
- Ⓑ Cells arise from pre-existing cells
- Ⓒ Cells can transform into other types of cells
- Ⓓ Cells are the basic unit of life

**95 Which process is primarily responsible for creating genetic variation during meiosis?**

1 point

- Ⓐ Transcription
- Ⓑ Translation
- Ⓒ Crossing over
- Ⓓ Mutation

**96 What is the name of the process by which DNA is copied before cell division?**

1 point

- Ⓐ Replication
- Ⓑ Recombination
- Ⓒ Translation
- Ⓓ Transcription

**97 What is the primary human activity causing global warming?**

1 point

- Ⓐ Deforestation
- Ⓑ Agriculture
- Ⓒ Burning fossil fuels
- Ⓓ Industrial processes

**98 What is the primary component of the bacterial cell wall in Gram-positive bacteria?**

1 point

- Ⓐ Teichoic acids
- Ⓑ Peptidoglycan
- Ⓒ Lipopolysaccharides
- Ⓓ Phospholipids

**99 What is the primary function of the small intestine?**

1 point

- Ⓐ Absorbing nutrients
- Ⓑ Producing bile

Ⓒ Storing glycogen

Ⓓ Filtering blood

**100 Which human activity contributes most to the depletion of the ozone layer?**

1 point

Ⓐ Agricultural practices

Ⓑ Deforestation

Ⓒ Use of chlorofluorocarbons (CFCs)

Ⓓ Burning fossil fuels

**101 Which of the following is an example of a producer?**

1 point

Ⓐ Ant

Ⓑ Bear

Ⓒ Oak tree

Ⓓ Wolf

**102 Which atmospheric cell is located between 30° and 60° latitude?**

1 point

Ⓐ Equatorial cell

Ⓑ Hadley cell

Ⓒ Polar cell

Ⓓ Ferrel cell

**103 What evidence supports the spherical shape of the Earth?**

1 point

Ⓐ Square shadows

Ⓑ Flat landscapes

Ⓒ The horizon

Ⓓ Triangular mountains

**104 Which planet is known as Earth's twin due to its similar size and composition?**

1 point

Ⓐ Mars

Ⓑ Venus

Ⓒ Mercury

Ⓓ Jupiter

**105 Which of the following is a key component of acid rain?**

1 point

Ⓐ Nitrous oxide

Ⓑ Methane

Ⓒ Sulfur dioxide

Ⓓ Carbon monoxide

**106 What is the main component of smog?**

1 point

Ⓐ Ozone

Ⓑ Carbon dioxide

Ⓒ Methane

Ⓓ Nitrous oxide

**107 Which severe weather event is often associated with the formation of a funnel cloud?**

1 point

Ⓐ Blizzard

Ⓑ Tornado

Ⓒ Hurricane

Ⓓ Flood

**108 Which of the following is an effect of light pollution?**

1 point

Ⓐ Disruption of ecosystems

Ⓑ Increased plant growth

Ⓒ Improved night vision

Ⓓ Enhanced star visibility

**109** Which zone is known for calm winds near the equator?

---

1 point

- A Doldrums
- B Polar front
- C Trade winds
- D Horse latitudes

**110** Which severe weather event is characterized by a prolonged period of excessively high temperatures?

---

1 point

- A Flood
- B Blizzard
- C Hurricane
- D Heatwave

# GED Full-Length Practice Test - Complete Simulation #14

DATE

## PERSONAL INFORMATION

FIRST NAME

LAST NAME

EMAIL

1 If  $x - 3(x + 2) = 2$ , what is  $x$ ?

1 point

- A -1  
 C 1

- B -2  
 D 0

2 Factor the following polynomial completely:  $x^3 + 2x^2 - 15x$ .

The factors are:

1 point

- A  $x(x^2 + x - 15)$   
 C  $x(x + 3)(x^2 - 5)$

- B  $x(x - 3)(x + 5)$   
 D  $x(x + 5)(x - 15)$

3 A cone is 8 inches deep and has a radius at the base of 6 inches. What is the volume of the cone?

1 point

- A 75.40 cubic inches  
 C 301.59 square inches

- B 150.80 cubic inches  
 D 301.59 cubic inches

4 Solve for  $x$ :  $x + 3 = 11$

1 point

- A 10  
 C 7

- B 9  
 D 8

5 If  $x - 7(x + 3) = 2$ , what is  $x$ ?

1 point

- A -5  
 C 5

- B 4  
 D -4

6 A cone is 10 inches deep and has a radius at the base of 4 inches. The formula for the volume of a right circular cone is  $V = \frac{1}{3} \pi r^2 h$ . What is the volume of the cone?

1 point

- A 167.55 square inches  
 B 167.55 cubic inches  
 C 50.27 cubic inches  
 D 502.65 cubic inches

7 A rectangle has dimensions of 22 inches by 11 1/2 inches. Its perimeter is:

1 point

- A 65 inches  
 B 66 inches  
 C 67 inches  
 D 64 inches

No calculator allowed.

8 Which of the following is the same as .000 000 000 000 000 065 395 in scientific notation?

1 point

- A  $6.5395 \times 10^{-17}$   
 B  $65.395 \times 10^{-16}$   
 C  $653.95 \times 10^{-19}$   
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1 point

- A \$758.50  
 B \$759.00  
 C \$765.00  
 D \$760.50

No calculator allowed

11 The decimal equivalent of 49.025%, to the nearest tenth, is [.....]

1 point

0.5

12 Simplify:  $4(x + x^2 + 3x^2 - 6x)$

1 point

- A  $-20x + 16x^2$   
 B  $-8x^2$   
 C  $20x + 16x^2$   
 D  $20x + 16x$

13 Consider two equations  $y = 9x + 3$  and  $y = -8x + 2$ . If these two equations were plotted on the same graph, they would meet at the point  $(x, y)$ . At that point, the slopes of the two lines would be

1 point

- Different from each other  
 Zero  
 Undefined  
 Equal to each other

14 Consider two equations

$$2x = 5 + Y$$
$$3x + y = 10$$

Complete the following tables of values for these equations:

$$2x = 5 + y$$

x	0	1	2
	-		-

y			
	5		1

$$3x + y = 10$$

x	0	2	
y	10	4	-2

1 point

$$y = -3; x = 4.$$

15 If  $x - 6(x + 2) = 2$ , what is  $x$ ?

1 point

- 1  
 -2  
 1  
 2

16 Factor the polynomial completely:  $x^2 - 9$

1 point

- $(x + 3)(x + 3)$   
  $(x - 9)(x + 1)$   
  $(x - 3)(x - 3)$   
  $(x + 3)(x - 3)$

17 Consider two equations  $y = 2x + 3$  and  $y = -x + 1$ . If these two equations were plotted on the same graph, they would meet at the point  $(x, y)$ . At that point, the slopes of the two lines would be

1 point

- Zero  
 Undefined  
 Different from each other  
 Equal to each other

18 Factor the polynomial completely:  $x^2 + 2x - 8$

1 point

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

19 Given that a line through point (2, 3) has slope 4, what is the equation of the line?

1 point

- (A)  $y = 4x - 5$   
 (C)  $y = 4x + 1$

- (B)  $y = 4x - 1$   
 (D)  $y = 4x + 3$

20 A store has a sale of 15% off the list price of everything. Sarah buys a coat listed at \$120 and a scarf listed at \$30. If there is a 6% sales tax on the purchase, what is the total bill?

1 point

- (A) \$127.20  
 (C) \$132.00

- (B) \$126.00  
 (D) \$128.70

21 Anna needs to ride her bike 30 miles to her aunt's house. She rides at an average rate of 10 miles per hour. She has 3 hours to get there. Can she make it on time?

1 point

- (A) Yes, she can make it on time.  
 (C) She will be late by 1 hour.

- (B) She will be late by 2 hours.  
 (D) No, she cannot make it on time.

22 A store has a sale of 30% off the list price of everything. Alice buys a dress listed at \$80 and a hat listed at \$20. If there is a 5% sales tax on the purchase, what is the total bill?

1 point

- (A) \$77.00  
 (C) \$84.00

- (B) \$70.20  
 (D) \$66.50

23 How long must a ladder be if it is 15 feet high on the wall of a building and the foot of the ladder is 8 feet from the building?

1 point

- (A) 21 feet  
 (C) 17 feet

- (B) 5 feet  
 (D) 12 feet

24 If you flip a fair coin 1500 times, how many tails would you expect to get?

1 point

- (A) 1000  
 (C) 1500

- (B) 500  
 (D) 750

25 A warehouse store has a sale of 30% off the list price of everything. David buys a blender listed at \$59.95 and a fry pan listed at \$12.47.

If David pays with a \$100 bill, what is her change?

1 point

- (A) \$45.76  
 (C) \$44.74.

- (B) \$50.00  
 (D) \$65.44.

26 Which sentence uses correct parallel structure?

1 point

- (A) He is working hard, hardly, and hardly works.  
 (B) They are laughing, joking, and to have fun.  
 (C) The dog is barking, jumping, and likes to chase its tail.

Ⓓ She is singing, dancing, and to play the piano.

**27 Correct the following sentence for parallel structure: 'The company focuses on increasing sales, improving customer service, and expand globally.'**

1 point

- Ⓐ The company focuses on increasing sales, improving customer service, and expanding globally.
- Ⓑ The company focuses on increasing sales, improving customer service, and expanded globally.
- Ⓒ The company focuses on increasing sales, improving customer service, and to expand globally.
- Ⓓ The company focuses on increasing sales, to improve customer service, and expanding globally.

**28 Sarah and \_\_\_ went to the store to buy groceries.**

1 point

- Ⓐ me
- Ⓑ mine
- Ⓒ I
- Ⓓ myself

**29 Which sentence uses correct punctuation?**

1 point

- Ⓐ The cat that, was hiding under the bed, finally came out.
- Ⓑ The cat, that was hiding under the bed, finally came out.
- Ⓒ The cat that was hiding under the bed finally came out.
- Ⓓ The cat that was hiding under the bed, finally came out.

**30 Nobody has seen \_\_\_\_\_ since the meeting last week.**

1 point

- Ⓐ their
- Ⓑ his
- Ⓒ her
- Ⓓ its

**31 Which sentence uses correct punctuation?**

1 point

- Ⓐ The book which I borrowed from the library, was very informative.
- Ⓑ The book which, I borrowed from the library, was very informative.
- Ⓒ The book which I borrowed from the library was very informative.
- Ⓓ The book, which I borrowed from the library, was very informative.

**32 Neither of the options \_\_\_\_\_ suitable for the project.**

1 point

- Ⓐ have been
- Ⓑ is
- Ⓒ are
- Ⓓ were

**33 Which sentence uses correct subject-verb agreement?**

1 point

- Ⓐ She playing tennis every Sunday.
- Ⓑ She plays tennis every Sunday.
- Ⓒ She play tennis every Sunday.
- Ⓓ She play tennis every Sundays.

**34 Choose the sentence that correctly uses a semicolon.**

1 point

- Ⓐ I like ice cream; but not chocolate.

- B She loves painting; and he loves drawing.
- C He went to the store; bought some milk.
- D They were tired; however, they continued working.

**35 Which sentence contains a dangling modifier?**

1 point

- A Sitting on the bench, the birds chirped happily.
- B Dancing in the rain, the music played softly.
- C Cooking breakfast, the smell filled the kitchen.
- D Painting a picture, the colors blended beautifully.

**36 Which sentence uses correct parallel structure?**

1 point

- A He likes to run, swim, and biking.
- B She is smart, funny, and enjoys to read.
- C We will cook, eat, and relax.
- D They were laughing, joking, and to play games.

**37 Which sentence is grammatically correct? A. She is speaking with her friend on the phone right now. B. She is speak with her friend on the phone right now. C. She speaking with her friend on the phone right now. D. She speaks with her friend on the phone right now.**

1 point

- A She speaks with her friend on the phone right now.
- B She speaking with her friend on the phone right now.
- C She is speak with her friend on the phone right now.
- D She is speaking with her friend on the phone right now.

**38 \_\_\_ and John are going to the party together.**

1 point

- A Herself
- B Her
- C She
- D Hers

**39 Identify the direct object in the sentence: 'They built a sandcastle on the beach.'**

1 point

- A sandcastle
- B beach
- C built
- D They

**40 What is a clause?**

1 point

- A A group of words with a subject and predicate
- B A group of words without a subject
- C A single word
- D A group of words without a verb

**41 Which sentence uses correct subject-verb agreement?**

1 point

- A They enjoys watching movie together.
- B They enjoy watching movie together.

- C They enjoys watching movies together.
- D They enjoy watching movies together.

**42 Identify the prepositional phrase in the following sentence: They went to the beach during the summer.**

1 point

- A To the beach
- B During the summer
- C They went
- D The beach

**43 What is the direct object in the following sentence: 'She baked cookies for the party.'?**

1 point

cookies

**44 Which sentence correctly uses a semicolon?**

1 point

- A He woke up early; to catch the sunrise.
- B They went to the zoo; and saw the lions.
- C I have a dog; his name is Max.
- D She likes to paint; and draw.

**45 Choose the sentence that corrects the parallel structure error: 'The teacher asked the students to read the book, answer the questions, and to write an essay.'**

1 point

- A The teacher asked the students to read the book, answering the questions, and writing an essay.
- B The teacher asked the students to read the book, answering the questions, and to write an essay.
- C The teacher asked the students to read the book, to answer the questions, and writing an essay.
- D The teacher asked the students to read the book, answer the questions, and write an essay.

**46 Which sentence contains a dangling modifier?**

1 point

- A Laughing uncontrollably, the joke was hilarious.
- B Playing the piano, the dog barked loudly.
- C Riding a bike, the park was peaceful.
- D Skiing down the slope, the snow was fresh.

**47 Which sentence correctly uses a semicolon?**

1 point

- A The teacher explained the lesson; then gave an assignment.
- B She is going to the party; with her sister.
- C He loves to play soccer; his favorite team is Real Madrid.
- D I enjoy reading books; and watching movies.

48 Correct the following sentence for parallel structure: 'The team must work together, communicate effectively, and problem solving.'

1 point

- A The team must work together, communicating effectively, and problem solving.
- B The team must work together, to communicate effectively, and problem solve.
- C The team must work together, communicate effectively, and problem solve.
- D The team must work together, to communicate effectively, and problem solving.

49 Identify the sentence that correctly uses an Oxford comma.

1 point

- A I need to buy milk, bread and cheese.
- B They visited Paris, Rome, and Berlin.
- C He bought apples, oranges and bananas.
- D She invited her parents, her friends and her colleagues.

50 Which sentence correctly uses a semicolon?

1 point

- A He finished his work; then went home.
- B I like to eat pizza; and pasta.
- C They went for a hike; and saw a beautiful waterfall.
- D She is studying hard; because she wants to improve her grades.

51 Which Founding Father wrote 'Common Sense', a pamphlet advocating independence from Britain?

1 point

- A John Adams
- B Benjamin Franklin
- C Thomas Paine
- D Samuel Adams

52 Which general led the Confederate Army during the American Civil War?

1 point

- A William T. Sherman
- B George McClellan
- C Robert E. Lee
- D Stonewall Jackson

53 Who was the President of the Confederate States during the American Civil War?

1 point

- A Abraham Lincoln
- B Jefferson Davis
- C Ulysses S. Grant
- D Robert E. Lee

54 Which amendment was ratified first among the Reconstruction Amendments?

1 point

- A 15th Amendment
- B 14th Amendment
- C 16th Amendment
- D 13th Amendment

55 Who was the primary diplomat in France during the American Revolution?

1 point

- A Thomas Jefferson
- B Alexander Hamilton
- C Benjamin Franklin
- D John Adams

56 What was the primary reason for the establishment of the Plymouth Colony?

1 point

- A Military strategy  
 B Economic opportunities  
 C Scientific research  
 D Religious freedom

57 Who is known as the 'Father of the Constitution'?

1 point

- A George Washington  
 B James Madison  
 C Alexander Hamilton  
 D John Jay

58 Which famous explorer is credited with discovering America in 1492?

1 point

- A Marco Polo  
 B Christopher Columbus  
 C Ferdinand Magellan  
 D Vasco da Gama

59 What was the name of the ship that brought the Pilgrims to America?

1 point

- A Mayflower  
 B Endeavour  
 C Santa Maria  
 D Susan Constant

60 What is the term for the phenomenon where individuals from different cultures come into continuous first-hand contact, resulting in changes in the original cultural patterns of either or both groups?

1 point

- A Cultural relativism  
 B Cultural diffusion  
 C Acculturation  
 D Cultural assimilation

61 Which landform is created by the deposition of sediment carried by rivers?

1 point

- A Plateau  
 B Canyon  
 C Mountain  
 D Delta

62 Which landform is formed by the movement of tectonic plates and often results in a long, narrow valley?

1 point

- A Beach  
 B Volcano  
 C Delta  
 D Rift Valley

63 Which concept involves evaluating other cultures based on the standards of one's own culture?

1 point

- A Cultural diffusion  
 B Pluralism  
 C Cultural relativism  
 D Ethnocentrism

64 Which concept refers to the process of integrating minority groups into mainstream society while maintaining their unique cultural identities?

1 point

- A Marginalization  
 B Assimilation

Segregation

Integration

**65 Which of the following is a benefit of having industrial zones?**

1 point

Enhanced tourism

Economic growth and job creation

Increased residential areas

Improved agricultural productivity

**66 Which of the following is a significant impact of mining activities?**

1 point

Increase in local wildlife population

Contamination of water sources

Reduction in soil erosion

Improvement in air quality

**67 Which trade route facilitated the exchange of goods between the Roman Empire and China?**

1 point

Silk Road

Amber Road

Incense Route

Royal Road

**68 What is the term for the amount of money you earn before taxes are taken out?**

1 point

Taxable income

Net income

Gross income

Disposable income

**69 Which factor does NOT influence consumer behaviour?**

1 point

Geological factors

Cultural factors

Social factors

Personal factors

**70 What does the term 'BRICS' stand for in the context of emerging economies?**

1 point

Brazil, Russia, India, China, South Africa

Bangladesh, Rwanda, Indonesia, Chile, Sweden

Belgium, Romania, Italy, Canada, Spain

Bolivia, Russia, Ireland, Colombia, Singapore

**71 What is one potential negative consequence of interventionism?**

1 point

Enhanced cultural understanding

Increased trade opportunities

Improved diplomatic relations

Resentment and backlash from other countries

**72 What is a common tool used in monetary policy?**

1 point

Interest rates

Taxation

Government spending

Trade agreements

**73 What is the main function of the World Bank?**

1 point

- (A) To regulate international trade policies
- (B) To provide military aid to countries
- (C) To manage global oil supplies
- (D) To offer financial and technical assistance to developing countries

**74 Which country has the largest economy in the world by GDP?**

1 point

- (A) Germany
- (B) United States
- (C) Japan
- (D) China

**75 What does APR stand for?**

1 point

- (A) Annual Payment Rate
- (B) Annual Percentage Rate
- (C) Annual Purchase Rate
- (D) Annual Profit Rate

**76 Which branch of government is responsible for making laws?**

1 point

- (A) Executive
- (B) Legislative
- (C) Administrative
- (D) Judicial

**77 Which amendment provides the right to keep and bear arms?**

1 point

- (A) Second Amendment
- (B) First Amendment
- (C) Third Amendment
- (D) Fourth Amendment

**78 Which activity is NOT considered civic engagement?**

1 point

- (A) Joining a community cleanup
- (B) Attending a town hall meeting
- (C) Participating in a protest
- (D) Playing sports with friends

**79 What is the highest court in the United States?**

1 point

- (A) The District Court
- (B) The Court of Appeals
- (C) The Federal Court
- (D) The Supreme Court

**80 Which amendment addresses the rights of individuals in civil trials?**

1 point

- (A) Seventh Amendment
- (B) Sixth Amendment
- (C) Fifth Amendment
- (D) Eighth Amendment

**81 Which amendment gave Congress the power to levy an income tax?**

1 point

- (A) Twenty-sixth Amendment
- (B) Nineteenth Amendment
- (C) Sixteenth Amendment
- (D) Twenty-first Amendment

82 Which amendment to the U.S. Constitution reserves powers to the states or the people?

1 point

- Tenth Amendment  
 First Amendment  
 Fourteenth Amendment  
 Fifth Amendment

83 Which branch of the federal government interprets laws?

1 point

- Judicial  
 Executive  
 Administrative  
 Legislative

84 What is the law that states that mass is neither created nor destroyed in a chemical reaction?

1 point

- Law of Definite Proportions  
 Law of Conservation of Mass  
 Law of Conservation of Energy  
 Law of Multiple Proportions

85 What is the phenomenon called when light bends as it passes from one medium to another?

1 point

- Refraction  
 Diffraction  
 Reflection  
 Absorption

86 Which of the following best describes the Law of Conservation of Mass?

1 point

- Mass can be both created and destroyed  
 Mass can be created but not destroyed  
 Mass is conserved and remains constant  
 Mass can be destroyed but not created

87 The Law of Conservation of Mass is important for which type of chemical reactions?

1 point

- Both endothermic and exothermic reactions  
 Neither endothermic nor exothermic reactions  
 Endothermic reactions only  
 Exothermic reactions only

88 Which thermodynamic law states that the total entropy of an isolated system can never decrease over time?

1 point

- Third Law  
 Second Law  
 First Law  
 Zeroth Law

89 Which of Newton's laws can be used to explain the propulsion of a rocket?

1 point

- Newton's Second Law  
 Newton's Third Law  
 Newton's First Law

D Newton's Law of Universal Gravitation

**90 Which of Newton's laws explains why passengers lurch forward in a car when it suddenly stops?**

1 point

- A Newton's Second Law  
 B Newton's Third Law  
 C Newton's First Law  
 D Newton's Law of Universal Gravitation

**91 Which element has the atomic number 8?**

1 point

- A Carbon  
 B Nitrogen  
 C Helium  
 D Oxygen

**92 What happens to light when it passes through a prism?**

1 point

- A It gets reflected  
 B It gets polarized  
 C It gets absorbed  
 D It gets dispersed

**93 Which of the following is a product of biotechnology?**

1 point

- A Plastic  
 B Steel  
 C Concrete  
 D Antibiotics

**94 Which of the following is NOT a component of the cell theory?**

1 point

- A All living organisms are composed of cells  
 B Cells arise from pre-existing cells  
 C Cells can transform into other types of cells  
 D Cells are the basic unit of life

**95 Which process is primarily responsible for creating genetic variation during meiosis?**

1 point

- A Transcription  
 B Translation  
 C Crossing over  
 D Mutation

**96 What is the name of the process by which DNA is copied before cell division?**

1 point

- A Replication  
 B Recombination  
 C Translation  
 D Transcription

**97 What is the primary human activity causing global warming?**

1 point

- A Deforestation  
 B Agriculture  
 C Burning fossil fuels  
 D Industrial processes

98 What is the primary component of the bacterial cell wall in Gram-positive bacteria?

1 point

- A Teichoic acids  B Peptidoglycan  
 C Lipopolysaccharides  D Phospholipids

99 What is the primary function of the small intestine?

1 point

- A Absorbing nutrients  B Producing bile  
 C Storing glycogen  D Filtering blood

100 Which human activity contributes most to the depletion of the ozone layer?

1 point

- A Agricultural practices  B Deforestation  
 C Use of chlorofluorocarbons (CFCs)  D Burning fossil fuels

101 Which of the following is an example of a producer?

1 point

- A Ant  B Bear  
 C Oak tree  D Wolf

102 Which atmospheric cell is located between 30° and 60° latitude?

1 point

- A Equatorial cell  B Hadley cell  
 C Polar cell  D Ferrel cell

103 What evidence supports the spherical shape of the Earth?

1 point

- A Square shadows  B Flat landscapes  
 C The horizon  D Triangular mountains

104 Which planet is known as Earth's twin due to its similar size and composition?

1 point

- A Mars  B Venus  
 C Mercury  D Jupiter

105 Which of the following is a key component of acid rain?

1 point

- A Nitrous oxide  B Methane  
 C Sulfur dioxide  D Carbon monoxide

106 What is the main component of smog?

1 point

- A Ozone  B Carbon dioxide  
 C Methane  D Nitrous oxide

107 Which severe weather event is often associated with the formation of a funnel cloud?

1 point

- A Blizzard  B Tornado

Ⓒ Hurricane

Ⓓ Flood

**108** Which of the following is an effect of light pollution?

1 point

Disruption of ecosystems

Increased plant growth

Improved night vision

Enhanced star visibility

**109** Which zone is known for calm winds near the equator?

1 point

Doldrums

Polar front

Trade winds

Horse latitudes

**110** Which severe weather event is characterized by a prolonged period of excessively high temperatures?

1 point

Flood

Blizzard

Hurricane

Heatwave