1. What title is given the former emperors of Russia?
   
   CZAR

2. Give the term referring to the trees that lose their leaves in the fall.
   
   DECIDUOUS

3. Name the American composer known for such works as God Bless America, White Christmas, and There’s No Business Like Show Business.

   (IRVING) BERLIN

4. What is 4/7 of $49.00?

   $28

5. Most Canadians originated from 2 different countries. Name one of these countries.

   ENGLAND or FRANCE

6. In the sentence, “Although he was a decent writer, he only scored an apprentice on his portfolio,” identify the correct spelling of although.

   ALTHOUGH

7. Such famous sculptures as The Thinker and The Kiss were both sculpted by which famous artist?

   (AUGUSTE) RODIN

8. Give the term referring to the eater of both plants and animals.

   OMNIVORE

9. Name the author of such children’s classics as Double Fudge and Otherwise Known as Sheila the Great.

   (JUDY) BLUME

10. Identify the type of angle that measures exactly 90°.

    RIGHT (ANGLE)

11. A leader of the woman suffrage movement, identify this female who was featured on a short-lived U. S. dollar coin.

    (SUSAN B.) ANTHONY
12. This state was the last one to join the union. It was once called the Sandwich Islands and has Honolulu as its capital.

HAWAII

13. Five times five can be written using an exponent. What would that exponent be?

2

14. A spoiled heir to the throne, Prince Brat, runs away from the castle and takes the lowly boy Jemmy along in which 1987 Newbery Medal winner written by Sid Fleischman?

THE WHIPPING BOY

15. What is the thin, clear tissue covering the eye?

CORNEA

16. Identify the term referring to the dramatic form associated with such works as Cats, Phantom of the Opera, and Oklahoma! There is some talking with lots of singing.

MUSICALS

17. This question requires a multiple answer. What are the two main parts of a sentence?

SUBJECT & PREDICATE

18. If 3 cans of peas cost $.99, how much would 9 cans of peas cost?

$2.97

19. Give the economics term referring to the exclusive control of a commodity or service in a given market. It is also the name of a popular board game that people of all ages enjoy.

MONOPOLY

20. State the name of King Arthur's favorite castle.

CAMELOT

21. Identify the name of the founder of Maryland.

(LORD) BALTIMORE

22. Identify the organ system made up of muscles that move the bones.

MUSCULAR (SYSTEM)

23. Which space shuttle in 1986 exploded 73 seconds after launch when a seal on a solid-fuel booster rocket failed?

CHALLENGER
24. Known as Angel of the Battlefield, identify the founder of the American Red Cross.

(CLARA) BARTON

25. A word blend is formed by combining parts of two words. Which word is made when combining travel and monologue?

TRAVELOGUE

26. What is 345.182 rounded to the nearest ten?

350

27. What term is given to the space in an artwork that is filled with something such as lines, designs, color, or shapes?

POSITIVE (SPACE)

28. Rosine, Kentucky, was the birthplace of which singer and musician often called the “Father of Bluegrass Music”?

(BILL) MONROE

29. The fictional hero who loved to talk to the animals, Dr. Doolittle, was created by which author?

(HUGH) LOFTING

30. Two or more substances mixed together that keep their own properties and can be easily separated is known as what?

MIXTURE

31. If one side of an equilateral triangle is 900 feet, find its perimeter.

2,700 FEET

32. He was a U. S. statesman and governor of Massachusetts from 1794 to 1797. Identify the person who helped plan the Boston tea party and signed the Declaration of Independence.

(SAMUEL) ADAMS

33. Words like hot and cold and high and low are all considered what type of words that are opposite one another?

ANTONYMS

34. Mark bought 16 packs of gum. If each pack of gum had 8 sticks in it, how many sticks of gum did Mark buy?

128 (STICKS)

35. This question requires a multiple answer. Name the 3 smallest bones in the body that is located in the ear.

HAMMER, ANVIL, STIRRUP
1. Identify the Italian Renaissance painter known for such classics as *Adoration of the Magi* and *Birth of Venus.*

*(SANDRO) BOTTICELLI*

2. Give the correct spelling of the plural possessive form of *bunnies.*

*BUNNIES’*

3. His name is now synonymous with “traitor.” Identify the American Revolutionary War traitor who after his plot with John Andre to betray the American post at West Point was discovered in 1780, he escaped and later fought for the British.

*(BENEDICT) ARNOLD*

4. What is a large mass of ice that moves very slowly?

*GLACIER*

5. What is the least common multiple of 7 and 9?

*63*

6. In ancient theater, what name was used to refer to the stage?

*PROSCENIUM*

7. Personal writing which covers an event in the writer’s life often containing personal comments and ideas as well as a description of the event is known as what?

*(PERSONAL) NARRATIVE*

8. Having the nickname *Pelican State,* identify the U.S. state having as its capital, Baton Rouge.

*LOUISIANA*

9. A person who creates designs and pictures for books and magazines is known by what name?

*ILLUSTRATOR*

10. He was an American naturalist, explorer, and writer. Identify this individual largely responsible for the preservation of millions of acres of forestland and natural resources in the U.S.

*(JOHN) MUIR*

11. In which Jerry Spinelli book does a girl try out for the cheerleading team but failing to make it tries out for an all-boy wrestling team?

*THERE’S A GIRL IN MY HAMMERLOCK*

12. What is the study of how living and nonliving things interact?

*ECOLOGY*
13. Simplify the following: \((3 + 5)^2\) divided by 4.

16

14. This question requires a multiple answer. Name both of the lakes that surround part of the area known as the Land Between the Lakes.

KENTUCKY LAKE & LAKE BARKLEY

15. Which musical term refers to the distance in pitch between 2 notes?

INTERVAL

16. Which literary genre refers to a story that involves beings and events that could not possibly exist in real life?

FANTASY or FICTION

17. What is 12.5% of 64?

8

18. What is the jellylike substance that fills a cell?

CYTOPLASM

19. This mythological god is the same in both Greek and Roman myth. Identify the god of light, medicine, music, and poetry.

APOLLO

20. What term refers to the distance north or south of the Equator?

LATITUDE

21. In 1775 he was an agent for the Transylvania company. Identify this American frontiersman who blazed the Wilderness Road and founded Boonesboro, Kentucky.

(DANIEL) BOONE

29. This question requires a multiple answer. The square root of 42 lies between which two integers?

6 & 7

30. Identify this traditional popular violent Japanese drama with singing and dancing.

KABUKI

31. Identify the type of lines that never cross each other and stay the same distance apart.

PARALLEL (LINES)
32. Give the chemical symbol for the element, sodium.

NA

33. What term refers to a country in which industry has replaced farming as the main economic activity?

INDUSTRIALIZED (COUNTRY)

34. What is a long lyric that is deep in feeling and rich in poetic devices and imagery?

ODE

35. Identify the 19th century Romantic Polish composer known for such classics as Revolutionary Etude, Raindrop Prelude, Military Polonaise, and Sonata for Piano and Cello.

(FREDERIC) CHOPIN

EXTRA QUESTIONS

1. What is the multiplicative inverse of 8?

1/8

2. In the sentence, “She adores broccoli and cheese for supper,” identify the prepositional phrase.

FOR SUPPER

3. Give the term referring to a mapmaker.

CARTOGRAPHER

4. Name this lively dance originally of the Scottish highlands.

REEL

5. The amount of matter making up an object is known as what?

MASS
Northern Kentucky Academic League
JV Match – Week 1
MG—662

1. This question requires a multiple answer. Name the 2 creatures that made up the race of monsters in Greek myth known as centaurs.

   MAN & HORSE

2. This city is located on islands in the middle of a lake. Give the name of the present-day city that was once called Tenochtitlan.

   MEXICO CITY

3. It implies that since these objects are alike in some ways, they will probably be alike in other ways as well. Identify the writing term referring to a comparison of two or more similar objects.

   ANALOGY

4. Which modern French composer is known for such works as Prelude to the Afternoon of a Faun, Clair de Lune, Nocturnes, and Children's Corner?

   (CLAUDE) DEBUSSY

5. If Shelly hiked 14 miles in 3 hours and 30 minutes, how long would it take her to hike 28 miles at the same pace?

   7 HOURS

6. What is the process for regulating water loss through the leaves of a plant?

   TRANSPERSION

7. He was perhaps the greatest field commander the Civil War produced. His men made a brave stand at the first battle of Bull Run and later won fame for his amazing Valley Campaign. After the Valley Campaign, he became General Lee’s right hand man. He was with Lee until he was mistakenly shot by his own men at Chancellorsville. Name him.

   (GENERAL THOMAS “STONEWALL”) JACKSON

8. Identify the predicate adjective in the following sentence: The cool refreshing drink was quite fulfilling.

   FULFILLING

9. What term refers to material that transmits light but no detail?

   TRANSLUCENT
10. The title character repeatedly utters the phrase, "I would prefer not to" when he refuses to work when requested by the narrator, an unnamed lawyer, in which Herman Melville short story?  

BARTLEBY THE SCRIVENER: A STORY OF WALL STREET or BARTLEBY THE SCRIVENER

11. Give the literary term referring to the main character of a literary work.  

PROTAGONIST

12. Simplify the following: 24mb + 8mb − 3 mb + 7xy − 3xy.  

29mb + 4xy

13. It is used to symbolize direction, imply movement, and outline forms. Identify this element of art referring to the path of a moving dot or point.  

LINE

14. Give the term beginning with the letter K that refers to an emperor of Germany.  

KAISER

15. Glass is a compound composed of which two elements?  

SILICON & OXYGEN

16. Troublemaker Jake has finally met his match with super-smart E. D. and her wacky family in which 2003 Newbery Honor book written by Stephanie S. Tolan?  

SURVIVING THE APPLEWHITESE

17. Which element of music refers to the speed or pace of the music?  

TEMPO

18. Mia has an average of 99 on four tests. If three of her test scores are 100, 100, and 100, what is the fourth score?  

96

19. She was the daughter of Thutmose I. Identify this female who ruled Egypt as king and who is known for the magnificent temple complex that she ordered constructed.  

HATSHEPSUT

20. What is the process in which a gas loses heat energy and changes into a liquid?  

CONDENSATION

21. In the sentence, "My best friend gave me a piece of chocolate at recess," identify the direct object.  

PIECE
22. Name the Roman goddess of the dawn.
   AURORA

23. In a 3-4-5 right triangle, find the value of the cosine of the smallest angle.
   \[ \frac{4}{5} \]

24. Give the economics term referring to anything given up when a choice is made.
   COST

25. A frame or machine used to hold yarn or other fibers for weaving is known as what?
   LOOM

26. Identify the publisher whose 1754 cartoon featured the colonies as parts of a disjointed snake with the slogan, "Join, or Die" in an appeal for more unity among Britain's 13 colonies.
   (BENJAMIN) FRANKLIN

27. What name is given to an organism that feeds directly or indirectly on producers?
   CONSUMER or HETEROTROPH

28. Name the king wizard responsible for the downfall of Sauron in Tolkien's The Hobbit and The Lord of the Rings trilogy.
   GANDALF

29. If \( a = 5 \) and \( b = 3 \), simplify the following: \( 5a^2b \).
   375

30. Name the American artist of country scenes and seascapes known for such works as The Life Line, Snap the Whip, and The Gulf Stream.
   (WINSLOW) HOMER

31. He is found in a Charles Dickens' novel by the same name. Give the full name of the orphaned boy who joins a gang of thieves but after injury in a failed burglary discovers his family roots and escapes his life of crime.
   OLIVER TWIST

32. Birds have different types of feathers. What is the largest bird feather needed for flight?
   CONTOUR (FEATHER)

33. By what name was President Franklin D. Roosevelt's economic program known?
   NEW DEAL
34. Which fictional character was captain of the electric-powered submarine, the *Nautilus*, in Jules Verne's *Twenty Thousand Leagues Under the Sea*?

(CAPTAIN) NEMO

35. What is the suction cup-like structure connected to the water vascular system of an echinoderm?

TUBE FOOT

36. In five games Aaron's team scored 53, 32, 49, 24, and 28 points. Find the range.

29

37. It observes a month of fasting about March called Ramadan. Identify this major religion of Iraq and Saudi Arabia.

ISLAM

38. Give the name of the office that is the head of the Justice Department and the government's chief law enforcement officer.

ATTORNEY GENERAL

39. In sculpture what is the cutting of a form from a solid, hard material such as stone or wood?

CARVING

40. In the sentence, "He is such a quiet student," give the correct spelling of *quiet*.

QUIET
SECOND HALF

1. In the sentence, “He has such admiration for his father,” give the correct spelling of admiration.
   A D M I R A T I O N  T H C

2. Identify the U. S. Constitutional Amendment that gave African Americans the right to vote.
   15TH (AMENDMENT)
   ×

3. This author befriended two servants at an early age who told him short stories he later used as material in his books. Name this author whose book Nights with Uncle Remus recounts many of those stories.
   (JOEL CHANDLER) HARRIS

4. Give the name of the great crack, or rift, and the area on either side of it in the earth’s crust that runs down the middle of a massive underwater mountain range in the Atlantic Ocean.
   M I D - A T L A N T I C (RIFT VALLEY)
   ×

5. If an air conditioner uses 1,330 watts for 6 hours, how many kilowatt-hours does it use?
   7.98 (KILOWATT-HOURS)

6. What is the duplication and division of the nucleus and of the chromosomes during cell reproduction?
   M I T O S I S

7. Name the U. S. space project that landed a person on the moon in 1969 when Neil Armstrong was the first to set foot there.
   A P O L L O (PROJECT)

8. Identify the Roman poet known for writing a long epic poem about the founding of Rome, the Aeneid.
   V I R G I L  ×

9. Convert 0.917 to scientific notation.
   9.17 x 10⁻²

10. Give the specific name of animal that got into a terrible spat with a Calico cat in Eugene Field’s poem “The Duel.”
    G I N G H A M D O G

11. Concerning the assassin of Dr. Martin Luther King Jr., identify the person who admitted to the killing and was then convicted although he later withdrew his confession.
    (JAMES EARL) RAY
12. It is actually the largest moon in the solar system. Name the largest moon of the planet Jupiter.

GANYMENE

13. Tree-Ear is just a poor orphan who helps a great artist win an honor from the king in the 2002 Newbery medal winner *A Single Shard* written by which author?

(LINDA SUE) PARK

14. Identify the 15th century Italian artist whose completely original statue *David*, sculpted around 1430, was one of the first life-size, bronze, free-standing statues since antiquity.

DONATELLO

15. If a fair coin is flipped and a fair die is rolled, what is the probability that the coin will land on heads and the die will land on 3?

1/12

16. Give the German term meaning *sudden and swift attack* or *lightning war*.

BLITZKRIEG

17. In the sentence, "She is a really fast runner," identify the part of speech of *fast*.

ADJECTIVE

18. The explosive death of a star, which temporarily attains a brightness of 100 million suns or more, so that it can shine as brilliantly as a small galaxy for a few days or weeks is known as what?

SUPERNova

19. The Festival of San Fermin at Pamplona is an important festival in which European country?

SPAIN

20. Convert 0.9 grams into milligrams.

900 (MILLIGRAMS)

21. Which Swedish chemist and inventor is known for his invention of dynamite and for establishing the fund to provide the annual Nobel Prizes?

(ALFRED) NOBEL

22. Which theme of geography gives a description of an area based on human and physical characteristics?

PLACE

23. If Jon bought a skateboard for $80 but then sold it at a 200% profit, how much did he sell it for?

$160
24. The brain and the spinal cord are both inflamed in which serious illness?  

ENCEPHALITIS

25. This question requires a multiple answer. Name the 2 oldest men ever sworn in as U. S. Presidents.

(RONALD) REAGAN & (WILLIAM HENRY) HARRISON

26. He gave a famous performance at the White House in 1961. After Francisco Franco came to power in Spain, he went into exile in France and later moved to Puerto Rico. Identify this great 20th century Spanish cellist.

(PABLO) CASALS

27. He was an Italian political philosopher of the Renaissance. Identify this author of *The Prince*.

(NICCOLO) MACHIAVELLI

28. Give the 2-word Palestinian name for the parts of the West Bank and Gaza Strip occupied by Israel.

OCCUPIED TERRITORIES

29. In geometry what is a 3-dimensional spiral shape resembling a spring?

HELIX

30. What term refers to a jury that is unable to reach a verdict of guilty or not guilty with the result being a mistrial?

HUNG (JURY)

31. This question requires a multiple answer. Identify both the city and the state in which the college football Gator Bowl is played.

JACKSONVILLE, FLORIDA

32. What is the greatest common multiple of 3 and 9?

9

33. A humorous tender story about a new puppy who disappears on Thanksgiving Day is told in which 1952 Newbery Medal winner written by Eleanor Estes?

GINGER PYE

34. What kind of traits are carried on the x-chromosome?

SEX-LINKED (TRAITS)

35. If f(x) = 3x - 2, find f(4).

10
36. Give the ballet term for stepping directly onto the point of a foot.

PIQUE

37. President Franklin D. Roosevelt contracted it at the age of 39. Name this disease that left him unable to walk for the rest of his life.

POLIO

38. Identify the mood of the following sentence, “If I were you, I would get on the bus.”

SUBJUNCTIVE (MOOD)

39. Identify the type of compound that does not usually contain the element carbon.

INORGANIC (COMPOUND)

40. If \( y \) varies directly as \( x \) and the constant of variation is \( \frac{3}{4} \), what is \( x \) when \( y = 5 \)?

\[ \frac{20}{3} \]

EXTRA QUESTIONS

1. Sharie’s best friend Hannah just found a new best friend. What can Sharie do to win her back in *Best Friends Forever*? written by which author?

(ANGELA SHELF) MEDEARIS

2. The location east or west of the Prime Meridian is known as what?

(LINE OF) LONGITUDE

3. If the diameter of a circle is 25 feet, find the radius.

\[ 12 \frac{1}{2} \text{ FEET} \]

4. Identify the structure through which developing young receive food and oxygen while in the mother.

PLACENTA

5. Give the 4-letter musical term referring to a repeated motive that accompanies the words to the title of a popular song.

HOOK
Northern Kentucky Academic League
Varsity Match—Week 1

1. Artists originally developed this process to seal pores and prevent liquid seepage. The artist applies a wet layer of powdered glass to the piece, then places it back in the kiln. What process, used to apply decorative finishes to pottery, is also used to cover donuts in a sweet, sugary film?

GLAZE (Accept: GLAZING and other word forms)

2. If this value for a substance is less than 1, it will float in water. What dimensionless quantity is defined as the ratio of the density of a substance to that of a reference material, usually water?

SPECIFIC GRAVITY (Accept: RELATIVE DENSITY) (Not: DENSITY)

3. In order for a number to be divisible by 5, what are the possibilities for the last digit of the number?

0 (OR) 5 (EITHER ORDER)

4. In this novella, a governess tells of her experiences caring for Miles and Flora. She tells Mrs. Grose of her encounters with the ghosts of Peter Quint and Miss Jessel, two former employees. What is this ghost story, which was written by Henry James?

(THE) TURN OF THE SCREW

5. This celestial body housed some visitors created by H. G. Wells. Spirit, Opportunity and now Curiosity have all visited this fourth rock from the Sun. Give this planet, whose red color results from iron oxide.

MARS

6. Consider the sequence 16, 32, 64, 128, 256, and so on. What are the next three terms of the sequence?

512, 1024, (AND) 2048

7. Multiple answer required. The first is the sudden release of energy caused when tectonic plates move against one another. The second are the mini-tremors that follow, which are smaller in magnitude, but are still quite dangerous. Give the two terms for the shaking of the ground, and the following smaller shakes that arrive.

EARTHQUAKE, AFTERSHOCKS (either order)
8. The foreground of this artist’s most famous painting features a woman in a purple hoop skirt with an umbrella. Stephen Sondheim [SOND-hime] wrote a musical about this artist titled Sunday in the Park with him. Name this man who painted the pointillist masterpiece Sunday Afternoon on the Island of La Grande Jatte [grahnd ZHAHT].

(GEORGES) SEURAT [ZHORZH suh-RAH]

9. This author was a chemist and science teacher before becoming the only person to publish a Newbery Honor and Newbery winning book in the same year. She wrote about Leonardo da Vinci in The Second Mrs. Giaconda [juh-KAHN-duh], and a fictional mystery in Silent to the Bone. Who wrote From the Mixed-Up Files of Mrs. Basil E. Frankweiler and The View from Saturday?

(ELAINE L.) KONIGSBURG [KON-igs-berg]

10. This Caribbean island has its capital at San Juan. It lies between Hispanola [hiss-pan-YO-luh] and the Virgin Islands, and its citizens speak English and Spanish as official languages. Identify this unincorporated United States territory.

PUERTO RICO

11. It lives in water and uses its pores to get food. It stays in one place, often attached to a rock, and reproduces by budding. Name this animal in the class porifera [por-IF-er-uh].

SPONGE(S)

12. Japan commissioned this architect to design Tokyo’s Imperial Hotel in 1915. His personal residences were known as Taliesin and Taliesin West. Name this American architect best known for his work in the “Prairie Style.”

(FRANK LLOYD) WRIGHT

13. Suppose you made 12 cups of soup and your serving size is going to be 3/4 cup. How many servings will you have of the soup?

16

14. The author first published this novel as Sara Crewe: or, What Happened at Miss Minchin's Boarding School. The heroine loses her wealth when her father dies of jungle fever, but unknowingly befriends her father’s childhood friend, Tom Carrisford. Identify this 1905 Francis Hodgson Burnett novel.

(A) LITTLE PRINCESS

15. This continent sits on the opposite side of the Ural [YER-uhl] Mountains from Asia. It includes the regions of Iberia [ahy-BER-ee-uh], the Balkans, and Scandinavia. Identify this continent, which contains France and Germany.

EUROPE

2012-13 Governor’s Cup Practice Questions – Page 2
16. Debussy [deb-yoo-SEE] used the whole-tone and pentatonic types of these musical constructions in many of his works. The major and minor ones are also known as diatonic [die-uh-TON-ick], while the chromatic one includes all 12 pitches. What musical term denotes an ascending or descending sequence of pitches?

SCALE

17. Giving your answer as a simplified fraction, what is the ratio of teachers to students in a daycare if there are 6 teachers for a total of 75 students?

2/25

18. Like the thyroid, these endocrine glands secrete chemicals directly into the bloodstream. The fallopian tubes originate here, and lead to the uterus. Identify these paired, female reproductive organs that produce eggs, and the hormone estrogen.

OVARIES

19. This author received three National Book Award nominations, for Autobiography of My Dead Brother, Lockdown, and Monster, respectively. He deals with interracial relationships in Where Does the Night Go?, and the Vietnam War in Fallen Angels. Identify the writer of Scorpions and Hoops.

(WALTER DEAN) MYERS

20. This biome [BY-ohm] comes in two varieties: temperate and tropical. They are rich in biodiversity, containing up to 75% of the world's species. Name this landform, characterized by trees and heavy precipitation.

RAINFOREST

21. At a chili dinner, adult tickets are $5 and student tickets are $3 each. If 80 people bought tickets to the chili dinner, and $340 was collected, how many adult tickets were sold?

50 (ADULT)

22. He was the subject of Susan Campbell Bartoletti's 2006 Newbery Honor book, in which she profiles children Growing Up in his Shadow. As the leader of Germany's National Socialist Party, he oversaw Kristallnacht [KRISS-tuhl-NOKT] and the establishment of the Third Reich [RYK]. Which Nazi leader plunged Germany into World War II?

(ADOLF) HITLER

23. Shock researcher Walter Cannon coined this word for an organism's ability to maintain internal equilibrium. What do we call the tendency for organisms to keep steady their temperature level, and other vital conditions?

HOMEOSTASIS [hoh-mee-oh-STAY-sus]
24. This Bronze Age civilization featured multistory houses, complex sanitation systems, and streets laid out on a grid pattern. In its height from 2600 to 1900 B.C., its largest city and possibly its administrative capital was Mohenjo-Daro [moh-HEN-joh-DAHR-oh]. Identify this civilization found in the Indus Valley, in what is now Pakistan.

HARAPPAN [huh-RAP-un] (CIVILIZATION)

25. This composer included the movements “Dialogue of Wind and Waves” and “Play of the Waves” in his orchestral suite La Mer [MARE]. He composed two books of Preludes, which include “The Enulfed Cathedral” and “The Girl With the Flaxen Hair.” What French Impressionist composer also wrote Prelude to the Afternoon of a Faun?

(CLAUDE-ACHILLE) DEBUSSY [deb-yoo-SEE]

26. How many nanoseconds are in one second?

ONE BILLION (Accept: ONE TIMES TEN TO THE NINTH)

27. In medicine, this period is the span between exposure to a pathogen until signs and symptoms appear. In biology, it is the length of time for the process of development to take place. What period of growth also refers to the amount of time from conception to birth?

INCUBATION (PERIOD)

28. One piece by this composer was written based on flaws and errant marks on the manuscript paper which he used. That technique was just one of the many aleatonic [ay-lee-uh-TORE-ick], or chance, processes used by this composer. Name this experimentalist American composer who wrote 4'33" [four minutes thirty-three seconds].

(JOHN MILTON) CAGE (JR.)

29. This author won a Pulitzer Prize for his biography of Abraham Lincoln. He won two more for his collections "The War Years" and his "Complete Poems." Name the poet who wrote "Fog" and "Chicago."

(CARL) SANDBURG

30. This city depended on enslaved prisoners of war known as helots [HEL-uts] to do day-to-day labor. It is most famous for its stand against Persia at Thermopylae [ther-MOP-uh-lee] and later defeating Athens. What city-state in southern Greece was known for its militaristic culture?

SPARTA

31. In circle P, inscribed angle A intercepts an arc of 114 degrees. What is the measure of angle A?

57 DEGREES
32. Rocks, minerals, temperature and weather are chemical and geological factors that are referred to by this broader term. Starting with the letter "A," these will affect the ability for organisms within the habitat to survive and thrive. What are these non-living components of the biosphere?

ABiotic [ay-by-OT-ick] (Factors)

33. This author of crime fiction has sold more than four billion copies. She wrote the crime plays "And Then There Were None" and "The Mousetrap." Name this British author who pioneered the detective novel, of which she published 66.

(AGATHA) CHRISTIE

34. This document was signed at Runnymede [RUN-nee-meed]. Forced upon the king by his barons, it limited the powers of the throne and established basic due process. Identify this charter signed by King John in 1215.

Magna Carta [MAG-nuh CAR-tuh] (Accept: GREAT CHARTER)

35. This software was applied to "the News" in a series of musical parody videos. Artists known for extensive use of it include T-Pain. Name this infamous music software, which can alter the pitch of recorded vocals.

Autotune (Accept: AUTOTUNE (THE NEWS))

36. A rectangle has a perimeter of 272 units. If each side of the rectangle is tripled in length, what is the perimeter of the new rectangle?

816 (Units)

37. In chemistry, it is the process of separating a substance from a solution as a solid. In meteorology and earth science, it is any form of water, such as rain, snow, sleet, or hail, that falls to the earth's surface. Give the collective name for the condensed water vapor in the atmosphere.

Precipitation

38. In this story, Simon Wheeler tells the narrator about Jim Smiley, who bets on anything he can. Smiley raises the title amphibian, named Dan'l Webster, and loses $40 after a stranger fills his pet with lead shot. Identify this short story by Mark Twain.

(The) Celebrated Jumping Frog of Calaveras County (Accept: (The) Notorious Jumping Frog of Calaveras County)
39. Musicians associated with this Latin genre [ZHAN-ruh] include Perez Prado [puh-REZ PRAH-doe] and Tito Puente [TEE-tow PWEN-tay]. One of these pieces plays in West Side Story’s “Gym Dance,” and in 1999, Lou Bega covered Prado’s version of this genre “Number 5.” Name this Latin dance music genre, a five letter word beginning with “M.”

MAMBO(S)

40. This explorer was mistaken for a god when he landed on the Yucatán [yoo-kuh-TAHN] Peninsula. Using native allies and smallpox, he was able to topple a Central American empire with less than 1,000 of his own men. Name the conquistador [kon-KWIS-tuh-dore] who subjugated the Aztec Empire.

(HERNÁN) CORTÉS [er-NAHN kawr-TEZ] (Accept: HERNANDO CORTÉS)

End of first half – begin Inquiry Period
1. Given right triangle ABC, side a has a length of 6 units, side b has a length of 8 units, and side c has a length of 10 units. Giving your answer as a reduced fraction, what is the cosine of Angle B?

THREE-FIFTHS

2. In this story, one character naps while the other plods steadily toward the finish line. When the napper awakes, he sprints to the finish line, but loses the race. Which Aesop [EE-sop] fable teaches, "Slow and steady wins the race"?

(THE) TORTOISE AND THE HARE

3. In unaccompanied or silent dance, this element of dance may be measured by the dancer’s breathing. In accompanied dance, it is often described by “counts” of the music’s pulse. Name this element of dance which may also be measured with a stopwatch.

TIME (Accept: RHYTHM)

4. It is 11 times wider than Earth at the equator, although it is shorter than that through the poles. Launched in 1972, Pioneer 10 was a space probe built to send images and data about this planet back to Earth. What planet is known for a raging storm visible on its surface?

JUPITER

5. This ethnic group is the largest federally recognized tribe in the United States. Related to the Apache [uh-PATCH-ee], their language was used as an unbreakable military code during World War Two. Identify these Native Americans found around the Four Corners region of Arizona, Utah, and New Mexico.

NAVAJO [NAHV-ah-hoh]

6. Given the data: 3, 5, 7, 9, 11, and 13, what is the lower quartile of this data?

5

7. Identify the appositive phrase in the following sentence: Mrs. Smith, a very nice person, gave the class a compliment.

A VERY NICE PERSON

8. This colonial governor’s father was a creditor of Charles II, who gave him a land grant to settle the debt. In 1682, he sailed to America and established a refuge from religious persecution for the Quakers, of which he was a member. Give the founder of Philadelphia and his namesake colony.

(WILLIAM) PENN
9. This dance is performed with the feet turned so the toes point inward. It involves rapid kicks and knee bends, and was a favorite dance of “flappers.” Name this jazz dance from the Roaring 20s, which shares its name with a city in South Carolina.

CHARLESTON

10. This word starting with "I" can mean acceptance into an exclusive group or club. In physics, it is the production of a voltage across a conductor moving through a magnetic field. Give the term that underlies the operation of all electrical motors.

INDUCTION

11. Gasoline prices have skyrocketed; however, our family still plans to take our annual vacation to the Great Smoky Mountains. What two different punctuation marks should be used after skyrocketed and however?

SEMICOLON, COMMA

12. He was accused of covering up sexual abuse during his tenure with the Congregation for the Doctrine of Faith. He was president of the College of Cardinals before he was elected to his highest office. Name this successor of John Paul the Second, elected pope in 2005.

(POPE) BENEDICT THE SIXTEENTH  (Accept: (JOSEPH) RATZINGER)  
(Not: (POPE) BENEDICT alone)

13. In a standard deck of 52 cards, what is the probability, as a reduced fraction, that if you draw a single card at random the card will be a heart or a king?

FOUR-THIRTEENTHS

14. Kevin Bacon had to go to space camp before playing Jack Swigert in the film about this moon mission. The mission was aborted when an oxygen tank exploded. Name the mission that was deemed a "successful failure" when the crew returned to Earth on April 17, 1970.

APOLLO 13

15. This 1787 act forbade slavery in its namesake region. It organized that region into gridded townships, and established that any territory with more than sixty thousand people could apply for statehood. Give this law which organized the territory bounded by Ohio and Pennsylvania.

NORTHWEST ORDINANCE

16. In everyday terms, it marks the passage of two years. Foxglove, hollyhocks, parsley and carrots are all plants that go through two growth stages, so they are known as this. What type of plant has a lifespan that generally lasts two years?

BIENNIAL
17. Simplify this expression: the absolute value of 15 close quantity minus the absolute value of negative 4.

11

18. The hounded always finds comfort lying on its owner's king-size bed. Identify the word in the previous sentence that begins the prepositional phrase.

ON

19. This annexation was made to enable a southern transcontinental railroad. It cost the US $10 million, and was named for the American ambassador to Mexico. Name this purchase, in which the United States acquired land in what is now Arizona and New Mexico.

GADSDEN (PURCHASE)

20. This father of Polynices [pahl-ee-NI-seez] correctly answers "man" to the Sphinx's riddle. He blinds himself after discovering the true identity of his wife, Jocasta. Name this Theban king from Greek mythology, fated to kill his father and marry his mother.

OEDIPUS

21. During shows with long runs, these people may perform in weekend matinees or on other "off" nights. Lead roles usually have one of these people entirely dedicated to them. Name this theatrical role, whose job is to be ready step in as a performer if an original actor is unavailable.

UNDERSTUDY (Accept other forms of the word)

22. For small bats to do this, the humidity must be above 90 percent, or their wings will dry out. From the Latin for "winter," some insects will migrate to do this. What word means to pass the winter in a dormant condition with slowed metabolism?

HIBERNATE (Accept other forms of the word)

23. Given the polynomial: 5 X squared, plus 10 X, minus 4 X cubed, plus 7; what is the polynomial stated in standard form?

NEGATIVE 4 X CUBED PLUS 5 X Squared PLUS 10X PLUS 7

24. Spelling required. Compulsory enlistment in the armed forces is called a draft, or conscription. Spell "conscription".

C-O-N-S-C-R-I-P-T-I-O-N
25. This commander brilliantly fought the Valley Campaign in western Virginia in 1862. However, he was shot at Chancellorsville, had an arm amputated, and died of disease eight days later. Which Confederate general died from friendly fire?

(THOMAS "STONEWALL") JACKSON

26. Given the function $F$ of $X$ equals $3X$ minus 5, simplify the result of $F$ of the quantity $M$ plus 2.

$$3M + 1$$

27. In one Shakespeare play, this character begs a crowd to "lend me your ears." In another play, that same character is undone after the ships of his royal lover abandon him, and he commits suicide. Name this Roman who "come[s] to bury Caesar, not to praise him" in Julius Caesar, and who is the lover of Cleopatra.

(MARC) ANTONY

28. Many of these life forms have a fuzzy growth, called a mycelium [my-SEE-lee-um]. Some are beneficial, such as those used to make certain cheeses, and those from which antibiotics like penicillin are developed. What type of fungi grow on damp or decaying organic matter?

MOLDS

29. The Latin prefix "aud-" appears in words like "auditory" and "audiophile." Give the meaning of the prefix "aud-."

(TO) HEAR (Accept: HEARING)

30. This statesman collaborated with John Jay and James Madison on the Federalist Papers. He advocated federal funding of state debts, a national bank, and friendly relations with the British. Identify the first Secretary of the Treasury, who served under George Washington.

(ALEXANDER) HAMILTON

31. In May 1732, as a printer, he founded the first foreign-language newspaper in the English colonies. As a scientist, he was first to discover the principle of conservation of charge, after his investigations with what was then known as "electrical fluid." Name the man who earned the title "The First American," and is credited with numerous inventions.

(BENJAMIN) FRANKLIN

32. In this musical's song "I've Grown Accustomed to Her Face," its leading man laments falling in love with the leading lady. That lady earlier showcased a heavy Cockney accent in "Just You Wait!" and "Wouldn't It Be Loverly?" Name this Lerner and Lowe musical, in which Henry Higgins attempts to teach Eliza Doolittle proper pronunciation.

MY FAIR LADY (Not: PYGMALION)
33. One example of this three-word phrase would be "Dr. Seuss," since the writer's name was Theodore Geisel [GUY-zel]. What three-word French phrase means "pen name"?

NOM DE PLUME [nahm dih PLOOM]

34. Solve the equation: 5x minus the quantity, 2x plus 3, equals 9.

\( x = 4 \)

35. This clause is the first part of the First Amendment. It prohibits the United States government from setting up a state religion or preferring any religion over another. Give this clause found in the First Amendment.

ESTABLISHMENT (CLAUSE)

36. Examples of this literary term include Homer's Iliad and Milton's Paradise Lost. What type of long narrative poem records the adventures of a hero?

EPIC (POEM)

37. He headed the group responsible for running the 2002 Salt Lake City Olympics. He spearheaded the creation of a universal health care system during his 2003 to 2007 stint as governor of Massachusetts. Name this man, the 2012 Republican candidate for president.

((WILLARD) MITT) ROMNEY

38. State your answer as a reduced fraction. What is 2 raised to the negative first power added to 3 raised to the negative first power?

\( 0.8333333333 \)

HELEN correct

39. Symptoms of this two-word condition include redness and itching. An inflammation of the eye's outer membrane, it is scientifically known as conjunctivitis. What is the colorful name of this ailment?

PINK EYE

40. This writer was a founder of both detective fiction and horror. Among other works, who wrote "The Tell-Tale Heart" and "The Pit and the Pendulum"?

(EDGAR ALLAN) POE

End of second half – begin Inquiry Period
Extra Questions

LA-1 This economics book was co-authored by Friedrich Engels [FREED-rik EEN-gehls] and Karl Marx. It details the problems with class struggle and the capitalist society, and how socialism can resolve those issues. What is this German work published in 1848?

(THE) COMMUNIST MANIFESTO

M-2 Given the quadratic function, \( F \) of \( X \) equals \( X \) squared plus 8 \( X \) plus 5, what is the minimum \( y \) value of the function?

NEGATIVE 11

SS-3 This structure was originally known as the Flavian [FLAY-vee-un] Amphitheatre for the dynasty in power in A.D. 80, when it was built. Inside it, 50,000 people could watch mock sea battles, dramas based on mythology, and most famously, gladiator fights. Identify this Roman amphitheatre that is now in ruins.

COLOSSEUM [kol-uh-SEE-um]

SC-4 This three-word term can perhaps be described as the brain of a computer. It does all of the computer's processing. Name the piece of hardware which carries out instructions, performs mathematical and logical functions, and processes input and output.

CENTRAL PROCESSING UNIT

H-5 This work was originally composed for Paul Whiteman’s jazz band. Conceived as a “jazz concerto” [kun-CHER-toe] for piano and accompaniment, it opens with a two and a half octave clarinet glissando [glih-SAHN-doh]. Name this work by George Gershwin, which has a color in its name:

"RHAPSODY IN BLUE"