Northern Kentucky Academic League
6th Grade Match – Week 5
6—144

1. What term is given to a person who studies the weather? **METEOROLOGIST**

2. What is the left side of the stage as the actors face the audience? **STAGE LEFT**

3. Identify the Catholic nun called the “saint of the gutters” known for her work with the poor in India. **MOTHER TERESA**

4. Give the term referring to the major divisions of a drama. **ACTS**

5. Which country did the Nazis control from 1933 to 1945? **GERMANY**

6. Which organ system controls all other body systems and is made up of nerves? **NERVOUS (SYSTEM)**

7. Solve for a in the following: \(6a - 3 = 15\).
   \[a = 3\]

8. What is the past participle of drink? **DRUNK**

9. What term refers to the vertical threads that are attached to the top and bottom of a loom through which the weft is woven? **WARP**

10. Identify the folk hero cowboy legend having super cowboy strength. **PECOS BILL**

11. It is 22,834 feet tall. Identify the highest point located on the continent of South America. **(MT.) ACONCAGUA**
12. Give the correct spelling of the past tense of clog.
   C L O G G E D

13. Which “unsinkable” ocean liner sank on its first voyage in 1912?
   T I T A N I C

14. A likely explanation of a problem in an experiment is known as what?
   H Y P O T H E S I S

15. What is 3/5 divided by 3/5?
   1

16. What is the term for a person who makes maps?
   C A R T O G R A P H E R

17. This art movement is concentrated on showing the effects of light on things at different times of the day. Artists of this style use unblended dots and slashes of pure color placed close together to create a mood of a scene. Name this art movement associated with such artists as Monet and Cassatt.
   I M P R E S S I O N I S M

18. In the sentence, “Mary gave Sue a blue marble to put in the jar,” identify the indirect object.
   S U E

19. This question requires a multiple answer. North America is located in which 2 hemispheres?
   N O R T H & W E S T

20. Convert 3/5 into its equivalent percent.
   60%

21. Into how many time zones is the Earth divided?
   2 4

22. Identify the Post-Impressionist French artist known for such paintings as The Black Clock, The House of the Hanged Man, The Card Players, and Still Life with Onions.
   (P A U L) C E Z A N N E

23. A stanza is a division in a poem named for the number of lines it contains. A triplet contains how many lines?
   3 (L I N E S)
24. “We the people of the United States...” are the beginning lines of which historical document? It is the introduction to the U.S. Constitution.

PREAMBLE

25. Most people are very upset when this occurs. To what does the term halitosis refer?

BAD BREATH

26. This question requires a multiple answer. Identify 2 of the 4 prime numbers located between 10 and 20.

11, 13, 17, 19 (JUST 2)

27. Such things as talking lizards and glass apartments can be found as you follow Olivia’s adventures in her new and strange big-city building in which work written by Ellen Potter?

OLIVIA KIDNEY

28. What drug is found in cigarettes?

NICOTINE

29. Which basic metric unit is used to measure length?

METER

30. Which musical term refers to the unit of musical rhythm?

BEAT

31. Susan earned $400 over the summer. If her parents said that she had to save 60% of that, how much money did she have to save?

$240

32. Give the name of the ocean located directly west of California.

PACIFIC (OCEAN)

33. In the sentence, “He can’t go with us, but you can go to his house,” identify the coordinating conjunction.

BUT

34. A great mathematician, physicist, and inventor of the ancient Greek world, identify the individual who formulated a principle of buoyancy. He is known for his action of running out of his bath and into the street shouting “Eureka” when recognizing this principle.

ARCHIMEDES

35. Give the term beginning with the letter B meaning to use warships to prevent other ships from entering or leaving a harbor.

BLOCKADE
1. Which dance form grew out of ballet that expresses complex emotions and abstract ideas?
   MODERN (DANCE) \( \times \)

2. Convert 8 1/2 feet into inches.
   102 (INCHES)

3. Identify the main part of a sentence that tells who or what the sentence is about.
   SUBJECT \( \times \)

4. Name two of the three countries located on the continent of North America.
   CANADA, UNITED STATES, MEXICO (ANY 2)

5. Margaret tries to save the works of art in her family’s backyard in *The Outcasts of 19 Schuyler Place* written by which author also known for *From the Mixed-Up Files of Mrs. Basil E. Frankweiler*?
   (E. L.) KONIGSBURG \( \times \)

6. Two times two times two can be written using an exponent. What would the exponent be?
   3 \( \times \)

7. Measuring 20,320 feet high, identify the highest peak in North America.
   (MT.) MCKINLEY \( \times \)

8. What term refers to angles that have a sum of 90°?
   COMPLEMENTARY (ANGLES) \( \times \)

9. Words such as tiny and small and pretty and beautiful are known as what type of words meaning the same?
   SYNONYMS \( \times \)

10. What is the occurrence caused by the tilting of the earth on its axis and the revolution around the sun?
    CHANGE OF SEASONS (OR STATED IN A WAY MEANING THE SAME) \( \times \)

11. To change the way something looks to make it more interesting or meaningful usually by twisting it out of its proper or natural form or by exaggerating some of its features is known as what?
    DISTORT or DISTORTION or DISTORTING \( \times \)

12. Punctuate the following sentence, “Coming down the hill were the puppy and her mother, Annie.”
    COMMA AFTER MOTHER, PERIOD AT END OF SENTENCE \( \times \)
13. Which U. S. Constitutional Amendment pertains to excessive bail and cruel and unusual punishment?

8TH (AMENDMENT) 

14. Which term beginning with the letter O refers to any living thing?

ORGANISM

15. Each box contained 70 candles. If the school purchased 70 boxes of candles to sell, how many candles did they buy?

4,900


(LOUISA MAY) ALCOTT

17. According to Greek mythology, name the winged horse that belonged to the Muses.

PEGASUS

18. Identify the name of the type of government in which the people take part.

DEMOCRACY

19. Identify the American inventor of numerous mechanisms used in cars as well as the assembly line.

(HENRY) FORD

20. The Watkins family traveled 150 kilometers in the first 2 hours of their vacation. At this rate, how long will it take them to travel 600 kilometers?

8 HOURS


(GEORGES) BIZET

22. What is a spring that spouts a fountain of hot water and steam into the air?

GEYSER

23. Give the 2-word term referring to this system of escaped routes for slaves leading to a free state or territory.

UNDERGROUND RAILROAD


155.5 GRAMS

25. How often does the earth rotate on its axis?

EVERY 24 HOURS
26. What 2-word drama term means to rehearse a scene without any interruption?

RUN THROUGH

27. Give the correct spelling of the plural possessive form of *monkey*.

MONKEY'S

28. If $a = 3$ and $b = 7$, simplify the following: $2ab + b$.

$49$

29. Which branch of earth science is the study of the weather?

METEOROLOGY

30. Having its delta located in Louisiana, identify this river nicknamed “Old Man River.”

MISSISSIPPI (RIVER)

31. Movements such as walk, run, hop, jump, leap, gallop, and skip are all examples of which type of movements that travel from one location to another?

LOCOMOTOR (MOVEMENTS)

32. Name the first woman to cross the Atlantic Ocean on a solo flight.

(AMELIA) EARHART

33. In Einstein’s famous equation $e = mc^2$, to what does the $m$ refer?

MASS

34. Which step in the writing process refers to the changing of a piece of writing to improve it in style or content?

REVISIGN or REVISION

35. What kind of religious statues would one expect to be found in Bangkok, the capital of Thailand?

BUDDHA STATUES

EXTRA QUESTIONS

1. This question requires a first and last name answer. Samuel Langhorne Clemens is better known as writing under which pen name? One of his tales includes *The Adventures of Tom Sawyer*.

MARK TWAIN

2. How often does Earth revolve around the sun?

ONCE A YEAR or 365 DAYS

3. In which U. S. state is the Great Salt Lake found?

UTAH

4. Which property is illustrated by the following example: 68 times 1 = 68?

PROPERTY OF ONE

5. Identify the ornate style of art and architecture popular in the 1600s and 1700s.

BAROQUE
1. Andre Breton [bruh-TAWN] wrote this art movement's 1924 "manifesto." Artists associated with this movement include Rene Magritte [muh-GREET], and the painter of The Persistence of Memory. Name this art movement, exemplified by the melting clocks of Salvador Dali [dahl-EE].

SURREALISM (Accept SURREALIST and all other word forms)

2. Hooke's law describes objects with this property which allows the material to return to its original shape after external forces are removed. Most commonly associated with springs, what is the stretchy property?

ELASTICITY

3. How many prime numbers are larger than 0 and less than 10?

4

4. In this novel, Tom Canty and Edward Tudor swap lives by swapping clothing. Tom passes for Henry VIII's heir, while Edward begs for food and money in the London streets. What is this tale of mistaken identity by Mark Twain?

(THE) PRINCE AND THE PAUPER

5. This athlete spawned a controversy after someone leaked photos of him using cannabis. During his career, he has earned one bronze, three silver and eighteen gold medals at the Olympics. Name this American swimmer, who holds the record for most Olympic medals.

(MICHAEL) PHELPS

6. Consider the pattern: 2, 3, 5, 8, 12, 17, and so on. What is the 9th term of the sequence?

38

7. In weather terms, it is a long, narrow area of atmospheric low pressure. In physics, it is the lowest point on a wave, the opposite of the crest. What are these low-lying items?

TROUGHS

8. One of this painting's namesake features is portrayed as the Bat-signal in a popular humorous alteration of it. The painting of the French village Saint-Rémy [sahn RAY-mee] shows the town dominated by the swirls of blue and gold above it. What masterpiece by Vincent van Gogh is set after sundown?

(THE) STARRY NIGHT
9. The author envisioned this novel as a sequel to Absolutely Normal Chaos, but changed her mind. Salamanca Tree Hiddle travels cross-country with her grandparents, entertaining them with stories of her friends, Ben Finney and Phoebe Winterbottom. Name this novel, which won the 1995 Newbery Medal for Sharon Creech.

WALK TWO MOONS

10. This body of water is where reporters caught John Quincy Adams skinny dipping. It rises in Pennsylvania and runs through West Virginia, Maryland, and Virginia, before emptying into the Chesapeake. Identify this river, which runs past Washington, D.C.

POTOMAC (RIVER)

11. Formerly called a condenser, this component is commonly found in power supplies and amplifiers. It consists of two conducting plates separated by an electrical insulator, called the dielectric [dye-uh-LECK-trick]. Name this device that can build up and hold a charge for later dispersal.

CAPACITOR

12. In two novels, this children’s character accompanies her best friends, Tommy and Annika, "on board" and to "the South Seas." She possesses superhuman strength, as well as bright red braids that stick straight out from her head. Name this nine-year-old who refuses to grow up, and who was created by Astrid Lindgren.

PIPPI LONGSTOCKING

13. Stating your answer as an improper fraction, what is the sum when you add 3/5 and 2/3?

19/15

14. The river associated with this architectural landmark is Pennsylvania’s Bear Run. Its concrete cantilevers keep its balconies suspended in midair over that running water. Name this house designed by Frank Lloyd Wright, located over a waterfall.

FALLINGWATER (Accept KAUFMANN HOUSE)

15. This continent contains approximately 3.9 billion people. It houses such countries as Iran, India, and China. Name the world’s largest continent.

ASIA

16. Brass players may perform this musical technique by varying their air stream or embouchure, or physically wiggling the horn against their face. A string player does it by quickly rocking a finger of his left hand back and forth. Identify this expressive musical technique in which the pitch of a note is varied up and down by slight amounts, beginning with the letter “V.”

VIBRATO [vih-BRAH-toh, vie-BRAH-toh]
17. Giving your answer as a simplified fraction, what is the fraction of the numbers greater than 0 and less than 10 that are composite numbers?

\[ \frac{4}{9} \]

18. In this novel, winner of the 1986 Hugo and Nebula Awards, the hero leaves his siblings, Peter and Valentine, to attend Battle School. He lives with other Launchies, battles buggers, and eventually commands the Dragon Army. Name this science fiction classic by Orson Scott Card.

ENDER'S GAME

19. Lacking true stems, roots and leaves, these aquatic plants are used in Japanese cooking. They contain chlorophyll, which allows them to perform photosynthesis. What life form is considered "simple," due to its lack of many distinct organs found in land plants?

ALGAE

20. This biome [BY-ohm] appears on every continent except Antarctica. It is a region dominated by non-woody vegetation. Name this ecosystem, which covers the American Great Plains.

GRASSLAND

21. An architect is making a scale drawing for a project. If the architect uses a half-inch scale, then a half-inch on the drawing represents 1 foot of actual length. If a room is to have a width of 24 feet, how long will this room be on the drawing?

12 INCHES (Accept: 1 FOOT)

22. First and last name answer required. In 1946, President Truman appointed this woman the first chairperson of the United Nations Human Rights Commission. In her speech "On the Adoption of the Universal Declaration of Human Rights," she calls the document, "the Magna Carta of humanity." Name this first lady, best known for her marriage to the longest-serving U. S. president.

ELEANOR ROOSEVELT

23. Roots grow downward into the soil, due to gravitropism [GRAV-uh-TROPE-iz-um], while plant shoots grow due to this. It is the tendency for plants to grow upwards, specifically towards sunlight. Give the name for this growth and response to a light stimulus.

(POSITIVE) PHOTOTROPISM [FOE-toe-TROH-piz-um]

24. These structures were first devised by Imhotep in step form. Similar to the ziggurat [ZIG-goo-raht], the largest examples are at Giza [GHEE-zuh], including that of Khufu [KOO-foo]. Identify these Egyptian funeral structures with triangular faces.

PYRAMIDS

\[ 3 - 2 \]
25. This composer committed suicide shortly after the premiere of his Sixth Symphony. His Second Symphony is known as the "Little Russian," and his compositions for dancers revolutionized the ballet world. Name this composer of the ballets Sleeping Beauty, Swan Lake, and The Nutcracker.

(PETER ILYICH) TCHAIKOVSKY [chigh-KOFF-skee]

26. How many dekameters are in 10,000 decimeters?

100 (DEKAMETERS)

27. In genetics, this type of gene is symbolized by a lower case letter. It represents the genetic trait that can be masked by a dominant one. What "weaker" traits have a much lower chance of appearing in offspring?

RECESSIVE

28. Many of this composer's songs were composed to his brother Ira's lyrics. His instrumental works blended jazz and classical idioms, and include his Concerto [kun-CHER-toe] in F for piano and orchestra. Name this composer who also wrote the orchestral work An American in Paris.

(GEORGE) GERSHWIN

29. This 480 B.C. battle started with Xerxes' [ZERK-zees] army attempting to dislodge Leonidas' [lee-AH-nuh-duhs] troops from a mountain pass. However, the 7,000 Greeks, including a few hundred Spartans, held the pass for three days, until the Persians outflanked them. Name this ancient battle featured in the film 300.

(BATTLE OF) THERMOPYLAE [THER-mop-uh-lee]

30. This author penned an inaugural poem for Barack Obama. Her works include "Choices" and "The World is not a Pleasant Place to Be." Identify this American poet who writes largely about African American pride.

(NIKKI) GIOVANNI [JEE-oh-VAHN-ee]

31. For years a small population of this variety of squirrel has lived on the University of Louisville's Belknap campus. Their eyes appear pink or red, because the blood vessels in the retina are visible. Name this term for a plant or animal with a marked deficiency of pigmentation, which comes from the Latin for "white."

ALBINO

32. In a circle, a chord is a portion of this line. If a chord is extended to a line, what is the name of a line that intersects a circle twice?

SECANT (LINE)
33. The standard version of this instrument has a “chanterelle,” or “drone” string, in addition to its other four. Two of them “duel” in a well-known piece. Name this folk instrument, often associated with bluegrass.

BANJO(S)

34. This author composed one hundred fifty four sonnets and thirty eight plays. Sometimes called the Bard, who wrote "The Twelfth Night," "Hamlet," and "Romeo and Juliet"?

(WILLIAM) SHAKESPEARE

35. This country launched the Reconquista [ray-kohn-KEE-stah] to take back lands from Muslim invaders. It was unified by the marriage of Ferdinand of Aragon [AHR-ah-gohn] and Isabella of Castile [kah-STEEL]. Name this nation with its capital at Madrid.

SPAIN

36. A pentagon has 4 sides each of length 29 units each. The perimeter of the pentagon is 130 units. What is the length, in units, of the remaining side?

14 (UNITS)

37. In a park in Montana, there are at least 35 of these that are named, with about 25 of them active. They can be categorized as either alpine or continental, depending on the way they move. What do we call these huge masses of ice formed from compacted snow?

GLACIERS

38. In this story, set on Venus, a group of schoolchildren sees the sun once every seven years. When Margot, a former Earth child, tells them about sun, they lock her in a closet, causing her to miss the sun’s rare appearance. What is this Ray Bradbury short story?

ALL SUMMER IN A DAY

39. Music scholars often claim that this era began with works like the Missa Solemnis [MEE-suh suh-LEM-nis] and the “Hammerklavier” [HAH-mer-klah-vee-AIR] Sonata. Another work from this era is Hector Berlioz’s [BER-lee-oh-zes] Symphonie Fantastique [fan-tas-TEEK]. Which musical era, beginning with the late works of Beethoven, comprised most of the 19th century?

ROMANTIC(ISM) (ERA or PERIOD)

4-1

2012-13 Governor’s Cup Practice Questions – Page 5
This explorer was appointed the first Spanish governor of Puerto Rico. According to rumor, he undertook several voyages to the mainland seeking the Fountain of Youth. Who was this conquistador [kon-KWIS-tuh-dore], the first known European in Florida and what became the United States?

(JUAN) PONCE [PAHNS] DE LEON [LAY-ohn]

End of first half – begin Inquiry Period
1. Given right triangle ABC, side a has a length of 5 units, side b has a length of 13 units, and side c has a length of 12 units. Giving your answer as a reduced fraction, what is the tangent of angle A?

FIVE-TWELFTHS

2. In ballet, this type of attire may be reinforced to assist dancing done “en point” [AHN PÖIN(t)]. Another type of dance uses a type of this attire that has two metal plates attached to it. What type of dance attire is traditionally made of wood in clog dances?

SHOE(S) (Accept clear equivalents such as FOOTWEAR)

3. In science fiction stories, these are often gateways to wormholes. In real life, once something goes in, it won’t come out. What objects have the gravitational strength to prevent light from escaping, thus deforming space-time?

BLACK HOLES

4. In this story, a shepherd twice tricks villagers into running up a hill. When a real predator threatens his flock, no one comes to his rescue. Name this Aesop [EE-sop] fable, whose moral is, "No one believes a liar, even when he tells the truth."

(THE) BOY WHO CRIED WOLF

5. This culture, once thought to be the oldest in America, shares its name with the first king of the Franks to convert to Christianity. It was named after a site in New Mexico where its artifacts were found. What was this culture defined by its 13,000 year old stone tools, whose name begins with "C"?

CLOVIS [KLOH-vihs]

6. Given the data: 2, 4, 6, 8, 10, 12, 14, and 16, what is the upper quartile of the data?

13

7. Grammarians also call this kind of sentence, whose name comes from the Latin for "to call," an interjection. Identify this type of sentence, which expresses strong emotions and ends with its namesake punctuation mark.

EXCLAMATORY (Accept: EXCLAMATION)
8. Taking its name from a southeastern Italian city, this wild, flirtatious dance usually involves tambourines played by female dancers. It mimics hysterical flailing, and was thought of as a way to bring a bite victim back to rationality. Name this folk dance associated with a large spider.

TARANTELLA(S) [TAIR-un-TELL-uh]

9. This city was founded by Peter Minuit [MIN-yoo-it], who bought the land for it from the natives, though not for the reputed $24. Under the Governorship of Peter Stuyvesant [STY-veh-s-ant], it was seized by the English and renamed. Identify this city, the capital of New Netherland, which became the city of New York.

NEW AMSTERDAM

10. Used in meteorology, aeronautic and nautical capacities, this unit of speed is exactly 1,852 meters per hour. It can also be stated as the distance of one minute of arc of latitude measured along any meridian, traversed in one hour. Name this unit more commonly given as one nautical mile per hour.

KNOT

11. Dr. Seuss’s book title Oh, the Places You’ll Go! ends with this kind of punctuation. What type of punctuation is used at the end of an emphatic declaration, interjection, or command?

EXCLAMATION (MARK) (Accept: EXCLAMATION (POINT))

12. He is the namesake saint of a “Lateran” [lah-TAIR-an] church in Rome. He wrote one well-known text while imprisoned on the Isle of Patmos, and is the most likely candidate for “the disciple Jesus loved.” Name this Apostle, the brother of James and author of the Book of Revelation.

JOHN (Accept: (SAINT) JOHN THE APOSTLE or THE EVANGELIST or THE DIVINE or OF PATMOS)

13. If 8 people are in a room and three need to be chosen to give a presentation, how many different groups are possible?

56

14. It takes several inches of this material to deflect gamma radiation. What is this material, an element whose symbol comes from the Latin word plumbum?

LEAD
15. The offer for this acquisition was made after Napoleon lost Haiti to a slave revolt. Originally, the Americans only wanted to buy a single port city, but ended up buying 828,000 square miles. Name this fifteen million dollar deal that included New Orleans, which doubled the size of the United States.

LOUISIANA (PURCHASE)

16. Early Spanish explorers gave this nut its name, meaning "monkey face," because the three indentations resemble the head and face of a monkey. On many islands, it is a diet staple, providing a nutritious source of meat, juice, milk, and oil. Name the large, brown, hard-shelled seed from the palm tree that shares its name.

COCONUT

17. Shaped like a V, this function consists of two rays that meet at a single point. What is the name of the function that is denoted by two vertical line segments?

ABSOLUTE VALUE

18. Spell the conjunction used in the following sentence. I didn’t tell the salesperson anything, except that I needed some extra time to think about the offer.

E-X-C-E-P-T

19. This "physician" god is the first deity mentioned in the Hippocratic Oath. The twin brother of Artemis, he was the power behind the legendary Oracle at Delphi [DELL-fye]. Name this god of healing, light, and art.

APOLLO

20. This agreement resulted in the cessation of the slave trade in Washington, D.C., the Wilmont Provisio being thrown out, and the borders of Texas being drawn. It allowed California to enter as a free state, and was brokered by Stephen Douglas after being drafted by Henry Clay. Identify this agreement which implemented the Fugitive Slave Act.

COMPROMISE OF 1850

21. Aristotle described "catharsis" [kuh-THAHR-sus] as the purifying effect that this genre [ZHAHN-ruh] has on an audience. Shakespeare's works in this genre include King Lear, Othello, and Hamlet. Name this theatrical counterpart of "comedy."

TRAGEDY (Accept other forms of the word)

22. Earthworms and birds both have similar internal parts that go by this name, which assist in digestion. For birds, it is a muscular pouch located behind the stomach. Name this specialized internal body part that contains small pebbles and grit to mechanically break down seeds.

GIZZARD
23. Factor the polynomial: \(x^2 + 144\) over the real numbers.

NOT FACTORABLE (Accept: PRIME)

24. Spelling required. As a result of photosynthesis, chloroplasts can produce the green pigment chlorophyll. Spell "chlorophyll".

C-H-L-O-R-O-P-H-Y-L-L

25. This battle erupted when the CSS Virginia attempted to break the Union blockade outside of Norfolk. It resulted in a duel between the USS Monitor and the CSS Virginia, also known as the Merrimack [MEHR-in-mack]. Identify the first battle fought between ironclad warships.

(BATTLE OF) HAMPTON ROADS

26. Given the function \(F\) of \(x\) equals 3 \(x\) minus 5 and the function \(G\) of \(x\) equals negative 2 \(x\) plus 4, what is the value of \(F\) of \(x\) minus \(G\) of \(x\)?

\[
5x - 9
\]

27. In one scene in this Mary Chase play, the protagonist's sister is nearly committed to a mental hospital by accident. This play's title character is described as being a "pooka" [POO-kuh]. Name this play about Elwood Dowd, whose best friend is an invisible giant rabbit.

HARVEY

28. Lemon juice can be added to canned tomatoes to keep the acidity level high, which will help prevent this. Toxins from bacteria are the cause of this disease, of which all forms eventually lead to paralysis, and in severe cases, respiratory failure. Name this disease, commonly a food poisoning, which can be prevented by cooking foods to 250 degrees for three minutes.

BOTULISM

29. The Greek root "anthrop-" appears in words like "anthropology" and "anthropomorphism" [an-thruh-puh-MAWR-fiz-uhm]. Give the English meaning of the root "anthrop-".

HUMAN

30. This statesman and scientist invented the lightning rod and bifocals. He established a Philadelphia lending library, and authored Poor Richard's Almanack. Identify this Founding Father, sometimes called "The First American."

(BENJAMIN) FRANKLIN
31. In a television commercial for the iPhone 4S, Zooey Deschanel [ZOH-ee day-shuh-NEL] asks this intelligent personal assistant, "Is that rain?" The synthesized voice of this knowledge navigator responds with a current weather report. What is the four-letter name of this Apple product that responds to voice commands?

SIRI [SIH-ree]

32. In this musical's Act One finale, Nazi sympathizers reprise "Tomorrow Belongs to Me." As the show opens, the Emcee bids the audience "Willkommen" [VIL-kahm-in] to the title establishment. In which musical does Sally Bowles entertain at the Kit Kat Klub?

CABARET

33. Often used to describe the social norm, this phrase refers to an existing condition. What is this two-word Latin phrase?

STATUS QUO

34. Solve the equation: 3X plus 5 equals 2x minus 4.

$$X = -9$$

35. This clause has three parts: Indian, Foreign and Interstate. Often paired with the Necessary and Proper Clause, it is found at Article I, Section 8, Clause 3. What is this clause giving Congress the power to regulate trade?

COMMERCE (CLAUSE)

36. Authors use words to convey action, reveal character, identify themes, and suggest values. Identify the literary element that refers to the writer's selection of language or choice of words in a literary work.

DICTION

37. Had this man not died of lung cancer in January 2012, the Freeh Report may have led to his indictment. He was posthumously stripped of over 100 credited wins due to his role in covering up the actions of his subordinate Jerry Sandusky. Name this long-time football coach of Penn State.

(JOSEPH or JOE) PATERNO

38. Medicines used to prevent or treat this disease include Fosamax, Boniva, Actonel, and Reclast. These drugs may reverse the effects of this malady, by slowing the rate of bone loss, or increasing bone thickness. What ailment reduces bone mineral density, especially in women?

OSTEOPOROSIS
39. State the following number in scientific notation: Three-hundred fifty-seven millionths

3.57 TIMES TEN TO THE NEGATIVE 4TH (POWER)

40. This economic system covers almost every economy in the history of mankind. In these economies, there is some government intervention, but the free market still determines some things. What are these economies, blended between capitalism and communism?

MIXED (ECONOMY)

End of second half – begin Inquiry Period

Extra Questions

M-1 Given the quadratic function, F of X equals X squared plus 4 X minus 8, what is the vertex of the function?

(-2, -12)

SS-2 This ruler is guarded by a massive terracotta army in his city-sized tomb. He undertook massive projects such as building a national road network and the Great Wall as well as implementing Legalism. Identify this first Chinese emperor who united the country in 221 B.C.

QIN SHI HUANG [chin shih HWANG] (Accept: SHI HUANGDI [shih HWANG-dee])

LA-3 This twentieth-century artist inspired Carmen Bernier-Grand's picture book, Bigger Than Life. He married Frida Kahlo in 1929, and was sometimes associated with the Mexican Communist Party. Name this Mexican painter, best known for his colorful murals.

(DIEGO) RIVERA

SC-4 This type of body is thought to be made up of ammonia, methane, carbon dioxide and water. What kind of celestial object orbits Earth in a highly elongated, elliptical orbit?

COMET

H-5 When a university awarded this composer an honorary doctoral degree, he composed his Academic Festival Overture in thanks. This composer of four symphonies drew texts from the vernacular German Bible for his German Requiem [RECK-wee-um]. What composer is, often grouped with Bach and Beethoven as the third of classical music’s "Three B’s"?

(JOHANNES) BRAHMS
Northern Kentucky Academic League  
Varsity Match—Week 5

1. Mexican artist Diego Rivera [dee-AY-go ruh-VAIR-uh] was known for this type of large-scale work. Raphael’s The School of Athens and da Vinci’s The Last Supper are examples of it. What type of art consists of a scene painted directly onto a wall?

MURAL(S) (Accept: FRESCOES)

2. Suppose that A has a prime factorization of 3 times 5 times 7, and B has a prime factorization of 2 times 3 times 5. What is the least common multiple of A and B?

210

3. The Latin name for this element is argentum [ahr-JEN-tum], meaning "gray" or "shining." It has the highest electrical conductivity of all metals, and is used in high-end audio cables. Identify this precious metal, whose atomic number is 47, and whose symbol is Ag.

SILVER

4. This character escapes after hearing of Miss Watson’s plan to sell him to a downriver plantation. The Duke and Dauphin [doe-FAN] sell him to Silas and Sally Phelps, Tom Sawyer’s aunt and uncle. Identify this escaped slave, who accompanies Huck Finn down the Mississippi River.

JIM

5. This movement started in Tunisia in December 2010. It spawned the overthrow of Tunisian, Egyptian, and Libyan dictators, and started a civil war in Syria. Name this spread of democracy throughout the Muslim world.

ARAB SPRING

6. Given that the first term of a geometric sequence is 4 and the common ratio is 5, what is the fourth term of the sequence?

500

7. The "Press-Ewing" of the 1940s was an early model of one of these measuring and recording devices. The first was invented in China in 132 A.D., and was able to register a tremor from 400 miles away. What instrument detects and records the intensity, direction, and duration of a movement of the ground, especially of an earthquake?

SEISMOGRAPH
8. This artist's etchings The Disasters of War are a depiction of Napoleon's subjugation of his country. This court painter to both Charles the Fourth and Ferdinand the Seventh also painted iconic images of the resistance against the French. What Spanish artist painted the work titled The Third of May, 1808?

(FRANCISCO (JOSÉ) DE GOYA (Y LUCIENTES))

9. This island is the most populous in the United States. Part of New York City sits on it, and Connecticut lays across its namesake sound. Give this island, a part of New York state.

LONG (ISLAND)

10. This novel begins the Witting family series, the other books of which include Grandfather's Dance, Caleb's Story, and Skylark. Set in the Western U.S. in the late 1800s, it centers on Jacob Witting; his children, Anna and Caleb; and a mail-order bride. Identify this winner of the 1986 Newbery Medal, written by Patricia MacLachlan [muck-LOCK-lun].

SARAH, PLAIN AND TALL

11. These rays were given their name by Ernest Rutherford in 1903. They have wavelengths that are usually shorter than a few tenths of an angstrom, and are caused by radioactive decay. What type of electromagnetic radiation has the shortest wavelength and highest energy?

GAMMA (RAYS)

12. This architect's influences include the modernist styles of Le Corbusier [LAY cor-booze-YAY] and the Bauhaus. He contributed to the architecture of his hometown with his design for Hong Kong's Bank of China Tower. What Chinese-American architect's two initials stand for "Yeoh Ming"?

(YEOH MING or I.M.) PEI

13. This character first appeared in an 1881 Italian children's magazine, before Carlo Collodi [kuh-LOH-dee] wrote him into an 1883 novel. The Good Fairy allows him to become a real boy when he learns to love his wood-carver father, Geppetto [juh-PET-oh]. Identify this wooden puppet, whose nose grows when he lies.

PINOCCHIO

14. This oceanic flow carries warm water from Florida to Europe. It creates more intense hurricanes, as well as a warmer climate in Northern and Western Europe. Identify this current, named for the body of water where it originates.

GULF STREAM

15. What is the opposite of the absolute value of 7?
16. In a school with 300 students, 35% of the students bring their own lunch to school. How many students bring their lunch to school?

105

17. One of these musical symbols that looks like the top half of a square rather than the top half of a circle may designate an exceptionally long one. When one of these appears over a rest, it may be known as a “grand pause.” What musical symbol, commonly a half circle with a dot in the middle, calls for the music to temporarily stop moving forward?

FERMATA [fer-MAH-tuh] (Accept: HOLD) (Not: BIRD(S) EYE)

18. These plants are members of the lily family. What are these plants, whose chief use is for the relief of mild sunburns?

ALOE

19. This children’s author draws from her Taiwanese ancestry in works like Dim Sum for Everyone! and Fortune Cookie Fortunes. In 2006, she published The Year of the Dog, while 2007 saw the publication of Year of the Rat. Which author received a 2010 Newbery Honor for Where the Mountain Meets the Moon?

(Grace) Lin

20. This landform’s common features include cacti and sand dunes. Its diverse examples include the Negev [NEHG-ehv], Antarctica, and the Sahara. Identify this landscape, defined as a region that receives very little precipitation.

DESERT

21. On an analog clock, if the time is 4:00, what is the obtuse angle in degrees formed between the hour hand and minute hand?

120 (DEGREES)

22. These animals were a major part of one Russian’s experiments on classical conditioning. They would salivate not when presented with food, but when a lab assistant would approach them. What animals did Pavlov use to show a conditioned reflex?

DOGS

23. This author turned to children’s literature with It’s Our World, Too!: Young People Who Are Making a Difference, and We Were There, Too!: Young People in U.S. History. More recent books include Perfect, Once Removed; Moonbird; and The Race to Save the Lord God Bird. Identify this writer, who received a National Book Award and a Newbery Honor for Claudette Colvin: Twice Towards Justice.

(Phillip) Hoose
24. This composer's best known piano works include his A minor Piano Concerto, and his Lyric Pieces. "Morning" and "In the Hall of the Mountain King" are two movements from his Peer Gynt ["g" as in "get"] suite. Name this composer, a native of Norway whose surname begins with "G."

(EDVARD) GRIEG [GREEG]

25. This country was united by Qin Shi Huang [chin shih HWANG] in 221 B.C. It developed along the banks of the Yangtze [YANG-zee] and Yellow Rivers, with teachers such as Laozi [LAO zee] and Confucius. What East Asian civilization shares its name with a modern country?

CHINA (Accept: CHINESE CIVILIZATION)

26. The formula to convert Fahrenheit temperatures to Celsius is C equals 5/9 times the quantity, F minus 32. How many degrees Celsius would a temperature of 59 degrees Fahrenheit be?

15 (DEGREES CELSIUS)

27. The thickening of chromosomes is a mark of this phase of mitosis. At this phase, the chromosomes are still enclosed in the cell nucleus within the nuclear envelope. What is the first stage of mitosis called?

PROPHASE

28. This ballet's title was finalized after the music was composed. During composition, it was referred to as "Ballet for Martha." Set in a small Pennsylvania town in the 1800s, it prominently features a Shaker hymn tune. What ballet that uses the tune "Simple Gifts" was written by Aaron Copland [COPE-lund]?

APPALACHIAN SPRING

29. This emperor succeeded his great-uncle Claudius to the throne in A.D. 54. His reign experienced a persecution of Christianity and the Great Fire of Rome before he committed suicide to avoid assassination. Give this Roman emperor who supposedly "fiddled while Rome burnt."

NERO [NEE-roh]

30. This narrative poem begins long ago in a "kingdom by the sea." It concerns the death of a beautiful woman, leaving the narrator in distress. What is this poem by Edgar Allen Poe?

ANNABEL LEE
31. European composers’ first attempts to notate for this instrumental setup used up to 10 lines, with the indication “to be played by a single player.” They were enthralled by this setup after they saw it used by touring jazz bands. What specific instrumental grouping includes toms, cymbals, a snare drum, and a pedal-operated bass drum?

( DRUM) SET (Accept: (TRAP) SET or (DRUM) KIT)

32. The study of the distribution and movement of this specific resource with an 11-letter name is called hydrogeology. This word refers to the liquid in an artesian well, which rises to the surface under pressure from an aquifer. An aquifer is a layer of underground rock or soil, from which what substance may be extracted for usage?

GROUNDWATER

33. This empire included the kingdoms of Bavaria [buh-VAIR-ee-uh] and Prussia [PRUSH-uh]. It was a group of nations ruled by a central emperor, whose authority fluctuated with time and other factors. Name this very complex German empire.

HOLY ROMAN (EMPIRE)

34. This platonic solid has 30 edges and 12 vertices. There are 5 equilateral triangles meeting at each vertex. What is the name of a regular polyhedron with 20 faces?

ICOSAHEDRON

35. This play was written to satirize the House Un-American Activites Committee, before which its author testified. It dramatized the Salem Witch Trials, depicting them as means for the witnesses to dispose of their enemies and rivals. Give this allegorical play by Arthur Miller, published in 1952.

(THE) CRUCIBLE

36. A rhombus has diagonals of lengths 8 units and 12 units. What is the area, in square units, of the rhombus?

48 (SQUARE UNITS)

37. Plutonic and volcanic are two ways that this main classification of rock can be further categorized. Its name comes from the Latin for "fire," which is appropriate for rocks that generally form from magma. Identify the rock classification that includes basalt and obsidian.

IGNEOUS

38. This award went to pianist singer-songwriters--Alicia Keys and Norah Jones--in 2002 and 2003, respectively. Esperanza [es-puh-RON-zuh] Spalding won it in 2011. Which Grammy Award goes to a musician making his or her first big splash on a national level?

(GRAMMY AWARD FOR) BEST NEW ARTIST

2012-13 Governor’s Cup Practice Questions – Page 5
39. This navigator was born in Italy and later sailed for Ferdinand and Isabella of Spain. He sailed the Niña [NEEN-yah], the Pinta [PEEN-tah], and the Santa Maria [SAN-tah mah-REE-ah] to the Caribbean. Name this explorer, who reached the New World in 1492.

(CRISTOPHER) COLUMBUS

40. This short story originally appeared as the first chapter of My Life and Hard Times. When James falls out of his army cot, his mother assumes his father has died, and wakes the entire house. Identify this autobiographical story by James Thurber.

(THE) NIGHT THE BED FELL

End of first half — begin Inquiry Period
1. In a right triangle, the hypotenuse of the triangle has a length of 8 units and one of the legs has a length of 2 units. Giving your answer as a simplified radical, what is the length, in units, of the other leg?

2 SQUARE ROOT OF 15 (UNITS) (Accept: 2 RADICAL 15 (UNITS))

2. The book Follow the Drinking Gourd tells how slaves escaped to freedom guided by a song about this star group. It has two "pointer" stars that help astronomers find the North Star, and is also called the Wagon, the Plow, or Charles's Wain. What constellation is part of a larger constellation called Ursa Major?

BIG DIPPER (Accept: SEPTENTRIONES)

3. This character avoids execution by telling her husband an unfinished story each night. Over the course of one thousand and one nights, she tells of Sinbad the Sailor, Ali Baba [ALL-ee BOB-uh] and the Forty Thieves, and Aladdin and his Magic Lamp. Who is this wife of King Shahryar [shar-RAY-ar], narrator of The Arabian Nights' Entertainment?

SCHEHERAZADE [shuh-HAIR-uh-zod]

4. This dancer and choreographer examined the life of Emily Dickinson in Letter to the World. Many of her works were created to music of Louis Horst, but she is best known for her collaboration with Aaron Copland. Name this female pioneer of modern dance.

(MARTHA) GRAHAM

5. This group of indigenous peoples banded together in response to colonization. Its native name translates as "People of the Longhouses" and members included the Mohawk and Oneida [oh-NYE-dah]. Name this league of Native American tribes in upstate New York.

IROQUOIS [eer-uh-KWOY] (LEAGUE)

6. In a normal distribution, data falls in very specific percentages distributed about the mean. Rounded to the nearest percent, what percent of data falls within one standard deviation of the mean?

68 (%) 

7. The student president of the Kentucky Junior Historical Society, one of our best officers, always offers to help with our convention projects. Identify the appositive phrase in the previous sentence.

ONE OF OUR BEST OFFICERS
8. This colony was seized from the Dutch in 1664 and renamed after the King’s brother. It included the second largest city in the colonies, which shared its name with the colony itself, and had an active fur trade along its Hudson River. Give this colony formerly known as New Netherlands.

NEW YORK

9. This dance was first developed by Spanish Moors, and includes light, high percussion sounds such as hand clapping and castanets. The musical accompaniment of this triple-time dance continuously increases over its course. Name this folk dance of Spain and Portugal.

FANDANGO

10. Of these two types of word groups, one can stand alone, and one cannot. Unlike phrases, they contain a subject and a verb. What are these two main types of clauses?

INDEPENDENT, DEPENDENT (either order) (Accept: MAIN, SUBORDINATE (any order))

11. Suppose you are going to randomly choose a day of the week. What is the probability, as a reduced fraction that the day you choose ends with the letter Y?

1 (Accept: 100 %)

12. The name of this type of vehicle is synonymous with "mixed character." By combining the best of two worlds, car makers are engineering vehicles that use both fuel and electricity to power their engines. The Insight, the Volt, and the Prius are all what type of automobile?

HYBRID (CAR or VEHICLE)

13. This general received credit for neither the capture of Fort Ticonderoga tie-kahn-der-OH-guh] nor the victory at Saratoga, though he was a hero at both. Feeling betrayed, he offered to sell West Point to the British, but his cover was blown by Major John Andre [AHN-dray]. What American Revolutionary commander’s name is synonymous with the word "traitor"?

(BENEDICT) ARNOLD

14. This religion’s moral code is known as “dharma” [DARM-ah], and its original language was Sanskrit. Its texts are known as “Vedas” [VAY-duhz], and its Trimurti includes Shiva, Vishnu, and Brahma. Name this religion associated with India.

HINDU(ISM)

15. The bush on which this fruit grows can be 20 feet tall, and is mistakenly called a tree, even though it contains no woody tissue. The fruit grows in "hands" of ten fingers or more, and later cut into "coronas" or "crowns," or as we commonly call them, "bunches." Name this fruit high in potassium.

BANANA
16. This location evaded Bellerophon [buh-LAIR-uh-fun] after Pegasus bucked him off during the ascent. Homer described its peak, the tallest in its country, as existing in "pure aether." Name this location, the home of the gods in Greek mythology.

(MOUNT) OLYMPUS

17. This militia leader participated in the Bleeding Kansas violence, and perpetrated the Pottawatomie [pot-uh-WAHT-uh-mee] massacre in that struggle. Later, he attempted to start a slave uprising and seize a federal armory, but his revolt was put down and he was hanged. Name this abolitionist who led an 1859 raid on Harpers Ferry.

(JOHN) BROWN

18. This part of speech designates persons or things asked for, previously specified or understood from the context, and substitutes for nouns or noun phrases. Ours, who, which, myself, and anybody are examples of what part of speech?

PRONOUN

19. What is the absolute value of the opposite of 12?

12

20. In the Sondheim [SOND-hime] musical Into the Woods, this character is eventually fed to a giant after the other characters get frustrated with him. One of these in a mystery may be "unreliable," and an "omniscient" one knows everything about all the other characters. Name this dramatic character responsible for telling the story.

NARRATOR

21. Name the term, beginning with A, for organisms, such as plants, which obtain their carbon from carbon dioxide and their energy from sunlight.

AUTOTROPH [AW-toh-trohf]

22. Spelling required. The interminable journey across the country left the nomad exhausted. Spell the word in the previous sentence meaning "a person who does not stay long in the same place".

N-O-M-A-D

23. State your answer in standard form. What is the result when you multiply the quantity, 3 X plus 10, by the quantity, 5 X minus 4?

15 X SQUARED PLUS 38 X MINUS 40
24. This group of politicians included Edwin Stanton, William Seward, and Thaddeus Stevens. Lincoln vetoed their Wade-Davis bill, but after his death, they gained power. Which political faction led Reconstruction?

RADICAL REPUBLICANS

25. Given the function \( H \) of \( X \) equals 5 \( X \) squared minus 4 \( X \), what is the value of \( H \) of negative 3?

57

26. Robert Schenkkan wrote a set of nine plays known collectively as the "Kentucky" one of these dramatic groupings. Sophocles [SOF-uh-kleez] wrote one of these groupings that centered on Oedipus [Oedipus] and Thebes [THEEBZ]. What term describes a group of dramatic works that form a larger, overarching narrative, and begins with "C"?

CYCLE

27. The SI system measures length in meters. Lengths of substantially more or less than a meter contain a prefix. What is the term for one thousand meters?

KILOMETER

28. These fungi are members of the phylum [FIE-lum] Basidiomycota [buh-sid-ee-oh-my-KOH-tuh]. Not all varieties are safe for consumption. What is the more common name for these fungi with stems, caps and gills?

MUSHROOM

29. This statesman ran three times, but was never elected President. He helped negotiate the Missouri Compromise and the Compromise of 1850, earning him the nickname "the Great Compromiser." Who was this Speaker of the House from Kentucky, a member of the Great Triumvirate [tri-UM-vuh-rut]?

(HENRY) CLAY

30. Mainz [MIGHNTS], Germany, celebrates the life of this inventor in an annual festival called Johannisnacht [yoh-HAHN-us-nakt] On "Antiques Roadshow," an expert put a $25 to 35 million price tag on a first edition Bible printed by him. What German pioneer was the first in Europe to use movable type in a printing press?

(JOHANNES) GUTENBERG

31. This document is the oldest of its kind still in use. It is composed of seven articles and twenty seven amendments, the first ten of which are the Bill of Rights. Name this plan of government for the United States.

CONSTITUTION (OF THE UNITED STATES)
32. This French phrase is often used when something bad happens in life. What French phrase literally means "that's life"?

C'EST LA VIE [seh lah VEE]

33. This lyricist mentored Stephen Sondheim, and partnered with Jerome Kern on Showboat. Another of his partnerships resulted in South Pacific, Oklahoma, and The Sound of Music. Name this Broadway lyricist, the long-time partner of Richard Rodgers.

(OSCAR) HAMMERSTEIN (THE SECOND)

34. What is the equation of a vertical line that goes through the point (4, -7)?

\[ x = 4 \]

35. Originally and traditionally character-based, modern versions of this literary device tend to parallel story and theme. Identify this narrative form in which characters are representative of some larger humanistic trait, and attempt to convey some larger lesson or meaning to life.

ALLEGORY

36. The least-widely celebrated of the eleven US federal holidays, this holiday is known as "Dia de la Raza" [RAH-zuh] in Latin America, and is used to celebrate indigenous cultures. Currently, it is observed on the second Monday in October. Name this holiday that marks an event of the year 1492.

COLUMBUS DAY

37. There has been a problem recently with Chinese beetles destroying this type of tree. What is this type of tree, the white variety of which is used in the production of Louisville Slugger bats?

ASH

38. This movement is often confused with socialism, but it is much more extreme. It advocates for a completely stateless and classless society where all resources are shared and every man is equal. What is this economic system, frequently constrained with capitalism?

COMMUNISM

39. What is the product when you multiply the square root of 12 by the square root of 75?

30

40. Multiple answer. Solve the equation: X squared plus 5x minus 6 equals 0.

\[ (X = ) -6 \text{ AND } (X = ) 1 \) (EITHER ORDER)

End of second half — begin Inquiry Period
Extra Questions

H-1  This shape was the original formation of couples dancing the cotillion. This shape, also the original positioning of dancers in the quadrille [kwah-DREEL], names a dance associated with Appalachia. In what “shape” dance might you be instructed to “swing your partner” and then “do-si-do”?

SQUARE(S) (DANCE(S))

LA-2  This type of pronoun refers to a sentence’s previously named noun or pronoun. What type of pronoun usually ends in “-self” or “-selves?”

REFLEXIVE (PRONOUN) (Accept: INTENSIVE (PRONOUN))

SS-3  This vessel lent its name to an agreement that governed a New World colony. It departed from England in 1620 with 102 passengers and about 30 crew members, and landed at Cape Cod three months later, which its namesake "Compact" was signed. Identify this ship which carried the Pilgrims to the Plymouth Colony.

MAYFLOWER

M-4  The least common multiple of 6 and 10 is 30. What is the least common multiple of 6, 10, and 40?

120

SC-5  These fundamental constituents of matter combine to form hadrons [HAD-ronz]. Of the six flavors they come in, up and down are the most stable. What elementary particles can never be found or observed in isolation, and make up protons and neutrons?

QUARKS