1. This event happens immediately after one man realizes his brother, Deiphobus, was not actually there but was merely the disguised Athena. During this event, the target notes "My doom has come upon me...but let me first do some great thing" after he misses his enemy with his spear. It happens out of revenge for the death of Patroclus, and the victim's body is dragged around by a chariot, saddening his wife, Andromache and his father, King Priam, who pays a ransom. For 10 points, name this event from the Iliad when a heroic Trojan prince is slain by the nearly invulnerable Achilles.
ANSWER: death of Hector [or answers like the Hector-Achilles fight]
052-13-90-08101
2. This man wrote a poem about a boy who sleeps in soot and was sold by his father into sweeping chimneys. Another poem by this writer describes an animal that has "clothing of delight" and is asked "who made thee?" This poet wrote about a creature "burning bright in the forests of the night" in a poem that asks "what immortal hand or eye could frame thy fearful symmetry?" For 10 points, name this English Romantic poet of Songs of Innocence and Experience, which contains his poems "The Lamb" and "The Tyger." ANSWER: William Blake
3. This body of water's largest island was once ruled by Mormon dissident James Strang and is called Beaver Island. People cross this lake by boarding a ferry at Ludington called the SS Badger. It has the site of the Sleeping Bear Dunes National Lakeshore, which references a Chippewa myth. The Straits of Mackinac separate it from Lake Huron. For 10 points, name this only Great Lake entirely within the United States, the lake which Chicago rests upon.

## ANSWER: Lake Michigan

052-13-90-08103
4. In Paramecium, two of these organelles are located at either end of the cell, help it maintain its hypertonicity, and are known as the "contractile" type. This organelle's membrane is called the tonoplast. In plants, one type of these organelles contains "cell sap" and pushes the plasma membrane against the cell wall when turgor pressure is high. That is the "central" type of these organelles, which are vesicles. For 10 points, identify this organelle that stores water.
ANSWER: vacuoles
066-13-90-08104
5. This author of the book Six Crises defeated Helen Gahagan Douglas in a Senate campaign in which he referred to her as the "Pink Lady." His political career was briefly derailed after he lost a 1962 gubernatorial election to Pat Brown. This man was attacked by demonstrators while visiting Caracas, Venezuela, and he gave the "Checkers Speech" and engaged in the Kitchen Debate with Nikita Krushchev. For 10 points, name this President who was forced to resign due to the Watergate scandal.
ANSWER: Richard Nixon
030-13-90-08105
6. Epsom salts contain magnesium bound to this anion. Anhydrites such as gypsum are comprised of the calcium type of these salts. Along with water, a compound where lead is bound to this anion is created in a lead-acid battery. Vitriol salts contain this compound. It is formed after the complete dissociation of sulfuric acid. For 10 points, name this anion with a two minus charge, which consists of a sulfur atom bound to four oxygen atoms.
ANSWER: sulfate [do not accept "bisulfate"; do not accept "sulfite"]
140-13-90-08106
7. A character in this story is worried after he loses the Sunday saddle of Hans Van Ripper while riding the horse Gunpowder. This story features a competition for the hand of Katrina Van Tassel that includes Abraham Van Brunt, who goes by the nickname Brom Bones. The main character of this story is a Connecticut schoolmaster who is scared by the story of a Hessian ghost. For 10 points, name this story about Ichabod Crane and the Headless Horseman written by Washington Irving.
ANSWER: "The Legend of Sleepy Hollow"
023-13-90-08107
8. The Tenterfield speech was given by a politician from this country, Henry Parkes, who is considered the father of its federation. Peter Lalor led a revolt in Ballarat in this country. An outlaw here who wore a full suit of armor was the bushranger Ned Kelly. Gold miners led the Eureka rebellion in this country. An island here was once named for Van Diemen, and was explored by Abel Tasman. For 10 points, name this country which developed from the colony of New South Wales.
ANSWER: Australia
9. This country was the home of a poet who wrote a work about a soul being unchained from the body during the night in First Dream. Another author from this country renewed interest in Sor Juana Ines de la Cruz with his The Traps of Faith and wrote an essay about about this country entitled The Labryinth of Solitude. One author from this country wrote The Old Gringo, a fictionalized account of Ambrose Bierce's trip to this country with the army of Pancho Villa. For 10 points, name this home country of Carlos Fuentes and Octavio Paz.
ANSWER: Mexico
030-13-90-08109
10. This man wrote "I do not hope to turn again" in a poem about his conversion to Anglicanism, "Ash-Wednesday." The speaker of a poem by this man compares the evening to a "patient etherized upon a table," and that poem contains the refrain, "In the room the women come and go, talking of Michelangelo." He wrote a seminal 1922 poem beginning, "April is the cruelest month." For 10 points, name this poet of "The Love Song of J. Alfred Prufrock" and "The Waste Land."
ANSWER: T. S. Eliot
11. This man was ransomed for 150,000 marks after being imprisoned in Duke Leopold's castle Durnstein, and he died of wounds while beseiging the castle of Chalus. Guy de Lusignan ceded the title of King of Jerusalem to this man. He made a truce with Saladin that gave Christian pilgrims free access to holy places in the Third Crusade, and he was the son of Eleanor of Aquitaine. For 10 points, name this son of Henry II and brother of King John who was known as the "Lion Hearted."
ANSWER: Richard I [or Richard the Lion Hearted before mentioned; of Richard Coeur de Lion before "Lionheart"]
12. One law of this type is put into use by ice skaters who draw in or extend their arms while spinning. A law of this type can be applied by itself in cases of elastic collisions, but must be considered with another law of this type in inelastic collisions. All laws of this type are exact for an isolated system. For 10 points, name this type of law that applies to angular momentum, momentum, and energy, the last of which is often stated as the fact that energy cannot be created or destroyed.
ANSWER: conservation laws [accept word forms; or conservation of angular momentum; or conservation of momentum; or conservation of energy]

023-13-90-08112
13. One of this composer's operas features the duet "Pa--, pa--, pa--", which is sung after a trio of spirits help bring a woman to the suicidal birdcatcher Papageno. This man composed the aria "Der Hölle Rache kocht in meinem Herzen", which is sung by the Queen of the Night in an opera in which Tamino woos Pamina using the title enchanted instrument. For 10 points, name this Austrian child prodigy, the composer of The Magic Flute and such non-operatic works as Eine Kleine Nachtmusik.
ANSWER: Wolfgang Amadeus Mozart [or Johannes Chrysostomus Wolfgangus Theophilus Mozart]
14. This man drew on the experiences of people such as Max Wertheimer, Albert Einstein, and Eleanor Roosevelt to formulate part of his most famous idea, which he put forth in tracts like Toward a Psychology of Being and A Theory of Human Motivation. This man thought "peak experiences" were representative of a state achieved by only $1 \%$ of all people, self-actualization. For 10 points, identify this psychologist who formulated the hierarchy of needs.
ANSWER: Abraham Maslow
233-13-90-08114
15. At a trial in this novel, its antagonist is called a "goblin-monk." It begins at the Festival of Fools, where Pierre Gringoire is trying to promote his play. Phoebus leads the King's Archers in this novel, in which Claude Frollo is killed by the title character after he expresses joy at Esmeralda's death. For 10 points, name this novel by Victor Hugo about a deformed man who serves as bell-ringer in a Parisian cathedral. ANSWER: The Hunchback of Notre-Dame [or Notre-Dame de Paris]

1A. What singer was the front man of the British rock band Queen until his death in 1991 ?
ANSWER: Freddie Mercury [or Farrokh Bulsara]
1B. O.J. Simpson plays Officer Nordberg in what series of Zucker, Abrahams and Zucker films based on the short-lived comedy Police Squad!?
ANSWER: Naked Gun
2A. For his trickery, Loki was punished by being bound to a rock while snake venom is dripped on him; that venom is caught by what wife of his?
ANSWER: Sigyn
2B. What guardian of the Davies boys was inspired by them to write novels like The Little White Bird and Peter Pan?
ANSWER: James Matthew Barrie
3 A . This is a 20 -second calculation question. What is the dot product of the vectors $(1,2,3)$ and $(5,0,-2)$ ? ANSWER: -1

3B. This is a 20 -second calculation question. If you roll two six-sided dice, what is the probability that their sum is greater than 9 ?
ANSWER: 6/36 [or 1/6]
4A. Identify the neighbor of Somalia that has sent troops over the border several times since 2006, under the leadership of premier Meles Zenawi.
ANSWER: Federal Democratic Republic of Ethiopia [or Ityop'iya Federalawi Demokrasiyawi Ripeblik]
4B. What substance with formula CHCl 3 was once widely used as an anesthetic?
ANSWER: chloroform
5A. Name the center for the 2013-14 Cleveland Cavaliers, who became the youngest person to play in an NBA game in 2005, the first of his seven seasons with the Lakers.
ANSWER: Andrew Bynum
5B. Hippasus was supposedly killed by the followers of Pythagoras for discovering that the square root of two was what type of number?
ANSWER: irrational number
6A. What chemist worked alongside the inventor of the Bunsen burner and lends his name to junction and loop laws for circuits?
ANSWER: Gustav Kirchhoff
6B. What Roman Catholic belief holds that the subtance of the bread and wine in the Eucharist becomes Christ's Real Presence?
ANSWER: transubstantiation
7A. The Kepler mission was designed to detect what type of bodies, which orbit stars other than our own? ANSWER: exoplanets [or extrasolar planets; prompt on obvious equivalents, such as planets orbiting a star that is not the Sun]

7B. What set of layers of plasma located just outside the atmosphere was discovered by Explorer 1 and named after an American physicist?
ANSWER: Van Allen radiation belts
8A. Name the world leader who defied the League of Nations by ordering the occupation of the Greek island of Corfu, and later by invading Abyssinia.
ANSWER: Benito Mussolini [or Benito Amilcare Andrea Mussolini]
8B. Brahms wrote a B minor quintet for what solo single reed woodwind instrument, which has a cylindrical bore and three main registers?
ANSWER: clarinet
9A. This is a 30 -second calculation question. Convert the equation " $2 \mathrm{x}+3 \mathrm{y}=18$ " into slope-intercept form.
ANSWER: $y=-2 / 3 x+6$
9B. This is a 30 -second calculation question. What is the length of the longest diagonal of a regular hexagon with area six times radical three square inches?
ANSWER: 4 inches
10A. What Yale professor and literary critic wrote The Anxiety of Influence and The Western Canon? ANSWER: Harold Bloom

10B. What French-Romanian sculptor created Bird in Space and The Endless Column?
ANSWER: Constantin Brancusi
hsapq

1. In one story by this author, the title character is tricked into thinking his garments are invisible until a boy notes that he is wearing nothing. In another story by this author of "The Emperor's New Clothes," a girl sees a vision of her grandmother as she ascends into heaven. This author wrote a story in which a prince is saved from a shipwreck by a creature that tries to obtain a human soul. For 10 points, name this author of fairy tales, such as "The Little Match Girl" and "The Little Mermaid."
ANSWER: Hans Christian Andersen
2. This war was the subject of the Frank Capra-directed Why We Fight series of films. During it, African American leaders promoted the "Double V" campaign. A poster in this war showed a person flexing a muscle while shouting "We Can Do It!" That image during this conflict was of a bandana-wearing female worker called "Rosie the Riveter." For 10 points, name this war which resulted in the internment of many Japanese-Americans in the 1940's.
ANSWER: World War II [or Second World War]
3. This process is regulated by caspases, which can be induced by the Fas ligand and cytochrome c. Unlike similar processes, the cell membrane is not ruptured during it, instead forming bulges known as blebs. p53 will activate this process if damage to DNA cannot be fixed. Cancer can occur if this process does not happen often enough. Unlike necrosis, it is regulated by the cell. For 10 points, name this process of programmed cell death.
ANSWER: apoptosis
140-13-90-08119
4. This author wrote a play that ends with the revelation that Larry killed himself because of a crime that Steve Deever was imprisoned for. In another play of his, Eddie betrays Rodolpho and Marco to immigration police. This author of A View from the Bridge and All My Sons wrote a play in which Giles Corey is crushed to death with stones and John Proctor refuses to confess to witchcraft. For 10 points, name this playwright of The Crucible.
ANSWER: Arthur Miller
5. John Greenleaf Whittier wrote a poem lamenting this man's support for the compromise of 1850, called "Ichabod." This man argued the cases of Darmouth v. Woodward and McCulloch v. Maryland before the Supreme Court, and he is known for a debate in which he said, "Liberty and Union, now and forever, one and inseparable." For 10 points, name this New Hampshire politician who had a famous debate with South Carolina's Robert Hayne over the issue of nullification.
ANSWER: Daniel Webster
6. The human exploitation of these structures can create a "cone of depression". These structures can be classified as perched or confined depending on whether a layer of clay is above or below them. Permeable areas create a recharge zone for these structures, which can suffer from saltwater intrusion. Although it is not a well, when their contents are under pressure, they can be classified as artesian. For 10 points, identify underground reservoirs of water that include the Ogallala.
ANSWER: aquifers [prompt on well until it is read]
7. Erroneously attempting to access this thing can cause a segmentation fault. Garbage collection is an automatic way to manage this thing. In C, malloc is used to dynamically allocate this thing. Paging is one way to increase the capacity of this thing. Pointers point to an address in this thing, which has a contiguous area taken up by arrays. For 10 points, identify this term for computer storage that includes types like read-only and random-access.
ANSWER: computer memory [prompt on computer storage until it is read]
066-13-90-08123
8. In 1945, this man was sent on an unsuccessful mission to broker a truce between the Chinese Nationalists and Communists at Yen-an. Winston Churchill called him the "organizer of victory" for his success at mobilizing the U.S. military, and the Point Four Program was a successor to an aid program he proposed in a speech at Harvard. For 10 points, name this U.S. Army chief of staff during World War II who as secretary of state proposed the plan for the European Recovery Program that bore his name.
ANSWER: George Catlett Marshall
9. Along with the kidneys, this organ is capable of synthesizing angiotensin-converting enzyme. Beta 2 agonists are mainly used to treat a disease of this organ. This organ is located in the pleural space. These two organs are connected to the trachea, which splits into many bronchi. These organs contain many alveoli, and are permanently damaged in emphysema. For 10 points, pneumonia and asthma affect what two organs, the largest of the respiratory system?
ANSWER: lungs
140-13-90-08125
10. During a critical step in this process, chiasmata form during synapsis. According to alternation of generations, sporophytes produce spores via this process, which introduces genetic variation with chromosomal crossover. It reduces the chromosomal count from 2 N to N by producing haploid cells. For 10 points, name this method of producing gametes, a form of cell division contrasted with mitosis. ANSWER: meiosis [or prophase I; or meiosis I]
11. The building at 30 St Mary Axe in this city was designed by Norman Foster and is nicknamed "the Gherkin." Most of its financial firms are in a central square mile area called simply "the City." Augustus Pugin designed a neo-Gothic government building here, the Palace of Westminster, which lies on the banks of the Thames and contains the clock tower nicknamed Big Ben. For 10 points, name this capital of the United Kingdom.
ANSWER: London, United Kingdom [or London, England]
12. The speaker of one of this man's poems declares "let the boys bring flowers in last month's newspapers." He described a "slovenly wilderness" in Tennessee in "Anecdote of the Jar" and addressed Ramon Fernandez in a poem beginning, "She sang beyond the genius of the sea." The title character of another of his poems is called "the roller of big cigars." For 10 points, name this 20th century American poet of "The Idea of Order at Key West" and "The Emperor of Ice Cream."
ANSWER: Wallace Stevens
192-13-90-08128
13. A third-party candidate running for one of this city's offices is Kristin Davis, who previously worked as a madam for an escort service. Scott Stringer is the Democratic candidate for comptroller here, having defeated a former governor and client of Davis. Bill de Blasio won its Democratic primary for mayor in September 2013 after campaigning against the current mayor and the city's police "stop-and-frisk" policy. For 10 points, name this city where Michael Bloomberg is currently mayor.

## ANSWER: New York City

14. ?In the first person singular form of this tense, verbs that end in " $z-a-r$ " change to " $c-a-r$ " and verbs that end in "g-a-r" change to "g-u-a-r." In this tense, the irregular verb "dar" takes the forms "di," "diste" "dio," "dimos," "disteis," and "dieron," which is similar to the regular pattern for "e-r" and "i-r" verbs in this tense. For 10 points, identify this Spanish verb tense, which expresses completed actions that took place in the past, unlike the other available past tense, the imperfect.
ANSWER: Spanish preterite tense [or el pretérito; do not accept or prompt on "past"]
15. This artist depicted Benjamin Franklin holding a key in his hand while a group of boys fly a kite in a stormy background. This artist painted many portraits of his patron, King George III, and he served as the second president of the Royal Academy. Another depiction by this man shows a Native American soldier kneeling near a dying British commander during the Battle of Quebec. For 10 points, name this American painter of The Death of General Wolfe.
ANSWER: Benjamin West
hsapq
16. This character is introduced as having fought like "Bellona's bridegroom" by a wounded soldier. He stated that his wife "should have died hereafter" shortly before his last battle. He orders the assassination of Fleance and Banquo, to try and prevent a prophecy of the Three Witches from coming true. This former Thane of Glamis is killed by MacDuff. For 10 points, name this Shakespearean ruler who killed King Duncan to rule over Scotland.
ANSWER: Macbeth
153-13-90-08132
17. This man's wife was attacked for being duped by con artists that tricked Cardinal Rohan into buying a very expensive necklace. His finance minister published a financial report which did not mention the very high cost of his country's involvement in the American Revolution. When this man died, he was officially called "Citizen Capet" by the revolutionary government. For 10 points, name this French king executed alongisde his wife Marie Antoinette.
ANSWER: Louis XVI [prompt on Louis]
121-13-90-08133
18. This compound reacts with aromatic amino acids to induce a color change in the xantoproteic protein test, and one "red fuming" mixture containing it is used as a rocket fuel. This compound is produced in an oxidation reaction catalyzed by platinum and rhodium in the Ostwald reaction, and this compound reacts with its precursor, ammonia, to form part of the ANFO explosive. With HCl , this compound forms a solution that can dissolve noble metals like gold, aqua regia. For 10 points, identify this acid with formula $\mathrm{HNO}_{3}$.
ANSWER: nitric acid [or $\underline{\mathbf{H N O}}_{\mathbf{3}}$ until it is read]
19. The momentum change of these particles gives rise to radiation pressure. Pair production is triggered by one of them hitting a nucleus. This particle is inelastically scattered by the Compton effect. The formula $h$ times c over lambda gives the energy of this particle, which Max Planck determined was quantized. For 10 points, name these particles that are the carriers of the electromagnetic force and the quanta of light. ANSWER: photon
20. This structure's Raine Island is the world's largest breeding site of green sea turtles. This location features a dive site called Cod Hole as part of Lizard Island. Half of this location has been lost over the last thirty years, in part because of the presence of the crown-of-thorns starfish. This site is located along the coast of Queensland in the Coral Sea. For 10 points, name this natural feature located northeast of Australia that is the world's largest coral reef system.

## ANSWER: Great Barrier Reef

023-13-90-08136
A set of three integers, $a, b$ and $c$, that satisfies the property a squared plus $b$ squared equals $c$ squared is known by what name?
ANSWER: Pythagorean triple
This is a calculation question. If you randomly select two integers, with replacement, between 1 and 10 , inclusive, what is the probability that their product is greater than their sum?
ANSWER: $\underline{4 / 5}$ [or $\underline{\mathbf{8 0 / 1 0 0} \text {; or obvious equivalents] }}$

