

2015-16 PLATO: Perfectly Likeable Academic Tournament Offering

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Round 8

1. This verb form can be used as an adjective and its “present” form can also be used in the progressive verb tense. Some examples featuring this verb form would be “the working man” and “I am running.” These parts of a verb can be past or present, but should never be left dangling as this often leads to great confusion. For 10 points, name this part of a verb that can end in -ed or -ing.

ANSWER: **participle** [accept **present participle** until “past”]

2. Made up of what is left over of Lake Bonneville, the lake is now fed by the Weber River, the Bear River, and the Jordan River. This lake has both brine shrimp and brine flies, but does not have any fish species living in it. The winter winds blowing over this lake create significant snowfall to its east, including in a capital named for this lake. For 10 points, name this landmark lake found near the capital of the state of Utah.

ANSWER: **Great Salt Lake** [prompt on Salt Lake]

3. The tawny frogmouth is often mistaken as this type of animal. These animals are divided into two families called Strigidae and Tytonidae, which are more commonly known as the “true” and “barn” varieties. These animals have serrated feathers that allow them to fly silently and they can turn their heads 270 degrees in either direction. Types of this animal include the Snowy and Great Horned species. For 10 points, name these nocturnal birds.

ANSWER: **owls** [or **Strigiformes**]

4. Observing this holiday is considered one of the Five Pillars of Islam. During the ninth month of the Islamic lunar calendar, the elderly, children, and women who are menstruating are excused from the fasting this holiday requires. The end of this month is the great feast of Eid al-Fitr, which occurs on the first day of the new moon. For 10 points, name this major Muslim holiday that has its practitioners fast during the daylight hours for a month.

ANSWER: **Ramadan**

5. While at West Point during this holiday, Jefferson Davis participated in the Grog Mutiny, which is sometimes called the “Eggnog Riot.” British and German soldiers during World War I met in “no man’s land” to celebrate this holiday. On the evening of this holiday, George Washington led soldiers across the Delaware River to attack a fort in Trenton. For 10 points, name this holiday celebrated on December 25th.

ANSWER: **Christmas**

6. In one opera by this man, Leporello sings of all the women his master has been with in the “Catalogue Aria.” That opera is “Don Giovanni.” Franz Sussmayr completed this man’s “Requiem Mass in D Minor,” and this composer also wrote a serenade titled “Eine Kleine Nachtmusik.” For 10 points, name this Austrian composer who composed his first symphony when he was eight years old and died at age thirty-five.

ANSWER: Wolfgang Amadeus **Mozart**

7. One leader of this country issued “Order No. 227,” which is famous for its line “not one step back!” President Eisenhower called one military leader of this country a “comrade-in-arms.” This country signed a non-aggression pact with Nazi Germany, which the Germans broke by attacking soldiers of this country in Poland. For 10 points, name this country led by Joseph Stalin during World War II.

ANSWER: **Soviet Union** [accept **USSR** or **Union of Soviet Socialist Republics**; do not accept Russia]

8. This book was discovered by Miep Gies, who gave it to the author’s father. This handwritten book is a journal in which the entries are addressed to “Dear Kitty.” The author writes about her interest in Peter van Pels and her lack of other friends. It chronicles the author’s life before and during the Nazi occupation of the Netherlands. For 10 points, name this book detailing the title girl’s life in an attic during the Holocaust.

ANSWER: *The **Diary of Anne Frank*** [accept *The **Diary of a Young Girl***; accept **Anne Frank’s diary**]

9. This element is the most malleable and ductile metal, and it is valued in electronics and jewelry for its resistance to corrosion. A combination of nitric and hydrochloric acid called aqua regia can dissolve this metal, which has a “fool’s” type known as pyrite. Covering a surface with leaf of this metal is called “gilding.” For 10 points, identify this valuable metal whose chemical symbol comes from its Latin name, “aurum.”

ANSWER: **gold** [or **Au**]

10. One mayor from this state, Jim Gray, came out as gay in 2005 and is currently running for a Senate seat. A woman from this state’s Rowan County feuded with Governor Steve Beshear over issuing marriage licenses in 2015. Mitch McConnell, who claimed Scalia’s Supreme Court seat should be filled by the next president, is from this state, as is Senator Rand Paul. For 10 points, name this state where Governor Matt Bevin leads from Frankfort.

ANSWER: **Kentucky**

11. This Christian denomination was founded by Jakob Ammann. Some communities where these people live encourage their youths to partake in rumspringa, in which they leave the community and experience life outside of this church, after which they can choose to return in order to be baptized. Many practitioners of this religion speak Pennsylvania Dutch. For 10 points, name this Anabaptist sect who are known for living without electricity.

ANSWER: **Amish**

12. This person imposed martial law in his country in a period known as “White Terror.” This leader was the head of the Whampoa Military Academy and replaced Sun Yat-sen as the leader of the Kuomintang. The Communists’ Long March was to escape the forces of this leader. For 10 points, name this political rival of Mao Zedong in China who became the first President of Taiwan after being exiled there.

ANSWER: **Chiang Kai-Shek** [accept **Jiang Jieshi**]

13. In reference frames with this point at the origin, the momentum of the total system is zero. For objects of uniform density, this location is equivalent to the centroid and it can be said that gravity acts entirely on this point for an object. This location can be found by summing the positions of masses in a system and dividing by total mass. For 10 points, name this point on which an object can be balanced.

ANSWER: **center of mass** [accept **centroid** until mentioned]

14. One book by this author features three characters based on Martin Luther, St. Peter and John Calvin; that is his *A Tale of a Tub*. This author also wrote a satirical essay suggesting that Irish people should eat their children. In one of his books, the title character encounters Houyhnhms [*win-emz*], Yahoos and Lilliputians. For 10 points, name this English-Irish author of *A Modest Proposal* and *Gulliver's Travels*.

ANSWER: Jonathan **Swift**

15. Marty McFly used one of these devices to escape Griff Tannen in 2015, though that device was not real. Actual devices with this name, manufactured by companies like Swagway, have been investigated for possible issues with the lithium-ion battery packs. New York City and many college campuses have banned these devices due to fire risk and danger for their riders. For 10 points each, name these two-wheeled self-propelled vehicles.

ANSWER: **hoverboards**

16. A mathematical lemma named for this man states that a prime number which divides a product of two numbers must divide one of those numbers. His works in mathematics inspired Archimedes and dealt with subjects such as three-dimensional geometry, perspective, and number theory. His “theorem” states there infinitely many primes. For 10 points, name this author of *Elements*, renowned as the father of geometry.

ANSWER: **Euclid** of Alexandria

17. Mehdi Hashemi was the first man to leak news of this scandal. This scandal resulted from a violation of the Boland Amendment, and the Tower Commission was created to investigate it. Oliver North funded Nicaraguan rebels with the profits from this scandal. For 10 points, name this scandal in which members of the Reagan administration sold arms to Iran to try to secure the release of American hostages.

ANSWER: **Iran-Contra** affair [or **Iran-Contra** scandal; accept **Contra** after “Iran” is read]

18. This play's character Brabantio is the father-in-law of the title character who travels to Cyprus. Brabantio's daughter had been secretly married to the title character, which bothers his jealous ensign Iago, who called jealousy a "green-eyed monster." Murder plots surround Iago, Roderigo, Desdemona and the title "Moor of Venice" in this play. For 10 points, name this tragedy by Shakespeare.

ANSWER: *Othello*

19. It's not a mountain range, but one of these geographic features runs from Montana to New Mexico, leading water to flow to the Pacific Ocean or to the Gulf of Mexico. Another of these features follows the Appalachians, separating the flow of water between the Atlantic Ocean and the Gulf of Mexico. For 10 points, name these imaginary lines, often aligned with major mountain ranges, which separate the watersheds of major bodies of water.

ANSWER: **continental divides**

20. This musical's song "Mushnik and Son" takes place before Orin dies of asphyxiation. The musical film version stars Rick Moranis as the protagonist and Steve Martin as an overzealous dentist. Songs in this show include "Skid Row," "Suddenly Seymour", and "Somewhere That's Green." For 10 points, name this musical in which florist Seymour must contend with the flesh-eating plant Audrey II.

ANSWER: *Little Shop of Horrors* [prompt on *Little Shop*]

TB. Impulse is the time integral of this quantity. Four "fundamental" types of this exist in nature. The rotational analogue of this quantity is torque. Drawing free-body diagrams can help identify these phenomena in a situation. This vector quantity can be found by multiplying mass by acceleration. For 10 points, name this interaction that changes the motion of an object and which is measured in newtons.

ANSWER: a **force**

BONUSES

1. Mitosis creates two identical daughter cells, but this process results in genetic diversity. For 10 points each:

[10] Identify this type of cell division, in which the daughter cells inherit half of the original cell's DNA.

ANSWER: **meiosis**

[10] One way in which meiosis creates unique cells is when crossing over occurs between homologous pairs of these coiled strands of DNA.

ANSWER: **chromosomes**

[10] In female organisms, only one of the four daughter cells of meiosis develops into the ovum, while the other three become these small, infertile cells.

ANSWER: **polar bodies** [accept **polar body**]

2. In Norse mythology, there are several realms in which the gods and mortals can reside, known as The Nine Realms. For 10 points each:

[10] Name the realm where the gods preside. Odin and his wife Friga rule over this realm.

ANSWER: **Asgard**

[10] This mystical Norse land located in the realm of Asgard is the home of a great feast for those who have died honorably in combat.

ANSWER: **Valhalla**

[10] This frozen underworld is comprised of a frozen river where the goddess Hel looks over those Norsemen and women who did not die heroically or nobly.

ANSWER: **Niflheim**

3. For 10 points each, name some third parties in American history.

[10] This environmentally conscious third party nominated Ralph Nader for president during the 2000 election.

ANSWER: **Green** Party

[10] Teddy Roosevelt formed this party and ran for the Presidency in 1912 on its ticket.

ANSWER: **Progressive** Party [accept **Bull Moose** Party]

[10] This party nominated Martin Van Buren during the 1848 election. Its members were known as "Barnburners" and it opposed the expansion of slavery into new territories.

ANSWER: **Free Soil** Party

4. This coming of age novel is named after fictional cities put on maps as a way of protecting against copyright infringement. For 10 points each:

[10] Name this John Green novel featuring Margo Roth Spiegelman, who runs away from home after getting revenge on those who betrayed her.

ANSWER: **Paper Towns**

[10] This protagonist of *Paper Towns* has had a crush on Margo ever since they found a dead body together as children in their neighborhood.

ANSWER: **Quentin Jacobsen** [accept either name; accept 'Q']

[10] Quentin's friend Radar's family has the world's largest collection of these holiday decorations.

ANSWER: **Black Santas** [prompt on **Santas**]

5. COMPUTATION: Some polygons can be distinguished by the sum of their interior angles. For 10 points each:

[10] A triangle contains this many degrees. Because of this, a triangle cannot be both right and obtuse.

ANSWER: **180** degrees

[10] This polygon's interior angles add up to 540 degrees.

ANSWER: **pentagon**

[10] The sum of all of the *exterior* angles of any polygon is this number of degrees.

ANSWER: **360** degrees

6. For 10 points each, name these important cities in Texas.

[10] This city is the fourth most populous in the United States and is home to George Bush Intercontinental Airport.

ANSWER: **Houston**, Texas

[10] This "weird" city serves as the capital of Texas. The annual South by Southwest festival occurs in this city annually.

ANSWER: **Austin**, Texas

[10] This city lies across the Rio Grande from Ciudad Juarez, Mexico, and is home to Fort Bliss, one of the U.S. military's largest installations.

ANSWER: **El Paso**, Texas

7. Plants will die if not exposed to the sun, because they are unable to perform this process. For 10 points each:

[10] Name this process in which organisms use light energy to make sugar.

ANSWER: **photosynthesis**

[10] These organelles are the site of photosynthesis, and the pigment they contain is the cause of a plant's green color.

ANSWER: **chloroplasts**

[10] Within the chloroplasts, these small sacs are arranged in stacks called grana and contain chlorophyll.

ANSWER: **thylakoids**

8. A long time ago, “rabbit-ear” antennae were common on top of TVs. For 10 points each, identify these more modern forms of television delivery.

[10] Radio frequency signals are transmitted through coaxial connections to paying customers in this form of television transmission. Time Warner provides this kind of service.

ANSWER: **cable** television

[10] DirecTV is one company offering this type of service, which relies on a dish to receive signals from the namesake objects in orbit.

ANSWER: **satellite** television

[10] Amazon released this digital media player technology in 2014 along with a smaller version nicknamed “stick.”

ANSWER: Amazon **Fire** TV

9. This author has created a book series based on Norse mythology featuring the character Magnus Chase. For 10 points each:

[10] Name this author, who also created the Kane Chronicles series about Egyptian mythology.

ANSWER: Rick **Riordan**

[10] Riordan’s best known series is based on Greek mythology and follows this boy with ADHD as he discovers he is a demigod.

ANSWER: Percy **Jackson** [prompt on “Percy”]

[10] Percy’s Latin teacher, Mr. Brunner, is revealed to be one of these creatures from Greek mythology named Chiron.

ANSWER: **centaur**

10. Answer the following about a Chinese emperor’s reign. For 10 points each:

[10] Name this first emperor of a unified China, who died from ingesting cyanide which he thought would make him immortal.

ANSWER: **Qin** Shihuang [accept **Shi** Huangdi]

[10] Emperor Qin may be best known for building an “army” made of this red brick-like material. Its name is Italian for “baked earth.”

ANSWER: **terracotta** [accept **terracotta army**]

[10] Legends about the emperor say that he burned many books and killed 460 Confucian scholars using this method.

ANSWER: **buried** them alive [accept word forms and clear equivalents]

11. The sky behind the subject of this painting is said to be red due to the eruption of Krakatoa. For 10 points each:

[10] Name this painting whose open-mouth subject is engaged in the title action.

ANSWER: *The **Scream***

[10] This Norwegian expressionist artist of *Death in the Sickroom* also painted *The Scream*.

ANSWER: Edvard **Munch** [“moonk”]

[10] *Death in the Sickroom* is included in this series of paintings by Munch, along with *Vampire*, *Anxiety*, and *The Sick Child*.

ANSWER: **Frieze of Life**

12. For 10 points each, answer these questions about official residences of important leaders.

[10] The White House's official address is 1600 on this avenue which runs through Washington, D.C.

ANSWER: **Pennsylvania** Avenue

[10] The Queen of England lives in this mansion near London. The queen's "garden parties" are often held on its grounds.

ANSWER: **Buckingham** Palace

[10] In this country, the president resides at Elysee [*elly-zay*] Palace. Annual Bastille Day parties used to be held at the palace until they were discontinued in 2010.

ANSWER: **France**

13. In January 2016, President Obama announced his "CS For All" initiative which proposed to teach students about coding. For 10 points each:

[10] Codes are written using certain symbols that can be combined in certain ways. Those constructions, such as C, Perl, Java, and Python, are given this name.

ANSWER: programming **languages**

[10] Programming languages can also be used to create this construct, which is a set of instructions to solve a specific problem or task.

ANSWER: **algorithms**

[10] Programming language is converted into machine code by using this type of computer program.

ANSWER: **compilers**

14. This character is half St. Bernard and half sheepdog. For 10 points each:

[10] Identify this dog who is sold as a sled dog in the Arctic. After much abuse, he eventually finds a kind master in the gold hunter John Thornton.

ANSWER: **Buck**

[10] Buck is the protagonist of this short adventure novel. At the end of this novel, Buck reconnects with his wolf ancestors after Thornton is killed by Yeehat Indians.

ANSWER: *The **Call of the Wild***

[10] *The Call of the Wild* was written by this author, who also wrote *White Fang*.

ANSWER: Jack **London**

15. This policy was reinforced by the Bantu Education Act. For 10 points each:

[10] Name this policy, which Stephen Biko protested in South Africa. It called for the racial segregation of blacks and whites.

ANSWER: **apartheid**

[10] This man was jailed for 18 years at Robben Island on high treason charges for protesting against apartheid. He later became the first President of South Africa.

ANSWER: Nelson **Mandela**

[10] Mandela shared the 1993 Nobel Peace Prize with this white man who helped end apartheid. He was the last State President of South Africa.

ANSWER: Frederik Wilhelm **de Klerk**

16. COMPUTATION: Finding a least common denominator is useful when adding and subtracting fractions. For 10 points each:

[10] What is the least common denominator of the following fractions?: $1/2$, $1/3$, $1/4$.

ANSWER: **12** [accept **1/12**]

[10] What is the least common denominator of the following fractions?: $1/3$, $1/8$, $1/4$.

ANSWER: **24** [accept **1/24**]

[10] Use the least common denominator to calculate $1/3$ minus $1/5$.

ANSWER: **2/15**

17. For 10 points each, answer these questions about the Nobel Prize in physics.

[10] This German won the award in 1918 for discovering that light energy travelled in quanta as opposed to continuous waves. He names a fundamental “length” in physics.

ANSWER: Max **Planck** [*plonk*]

[10] William Roentgen was awarded the first Nobel Prize in Physics for his discovery of this portion of the electromagnetic spectrum between ultraviolet and gamma radiation.

ANSWER: **x-rays**

[10] The 2014 award was split between three scientists who worked on these devices which use a p-n junction to generate light when a voltage is applied.

ANSWER: **LEDs** [accept **light-emitting diodes**]

18. Judge Webster Thayer denied all appeals following the sentencing of these men. For 10 points each:

[10] Name these two Italian immigrants who were convicted of armed robbery in 1920. They were defended by Felix Frankfurter.

ANSWER: Nicola **Sacco** and Bartolomeo **Vanzetti** [in either order; both answers required]

[10] Many think the men were seen in a negative light because of their belief in this political idea which sees no legitimate need for any government whatsoever.

ANSWER: **anarchism** [accept **anarchists** or **anarchy**]

[10] The men were pardoned in 1977 by Michael Dukakis, who at the time was governor of this state. Sacco and Vanzetti’s crime was committed in this state’s city of Braintree.

ANSWER: **Massachusetts**

19. Literature can often be divided into certain movements with similar themes. For 10 points each:

[10] This movement from the 14th to the 17th centuries had themes of learning and cultural flowering. It featured writers such as Boccaccio, John Milton and William Shakespeare.

ANSWER: **Renaissance**

[10] Later British writers such as William Wordsworth, Percy Shelley and Lord Byron were part of this period which focused on nature and strong emotions.

ANSWER: **Romanticism** [or **Romantic** period]

[10] A key writer of the Modernist movement in the early 20th century was this author of avant-garde works like *Ulysses* and *Dubliners*.

ANSWER: James **Joyce**

20. This 2013 video game follows the adventures of Joel and Ellie, two survivors in a post-apocalyptic America attempting to find a cure for a fatal fungus. For 10 points each:
[10] Name this survival horror zombie game made by Naughty Dog studios, which won IGN's Game of the Year Award.

ANSWER: *The **Last of Us***

[10] This other game series from Naughty Dog Studios follows the globetrotting adventures of treasure hunter Nathan Drake.

ANSWER: ***Uncharted***

[10] Both games originally launched as titles for this console, produced from 2006 to 2013 by Sony. It had "Slim" and "Super Slim" versions.

ANSWER: Sony **PlayStation 3** [prompt on **PlayStation**; accept **PS3**]

TB. For 10 points each, answer the following about anti-Black racism in the United States.

[10] Beyonce's 2016 Super Bowl costume paid homage to this controversial radical political group that fought against racism. It was founded by Huey Newton and Bobby Seale.

ANSWER: **Black Panther** Party for Self-Defense [accept **Black Panthers**]

[10] The death of this Florida teenager at the hands of George Zimmerman is often seen as a starting point for the Black Lives Matter movement.

ANSWER: Trayvon **Martin**

[10] This 2013 movie told the story of Oscar Grant's death while coming home from a New Year Eve's celebration in Oakland. It is named for the train stop where Grant died.

ANSWER: ***Fruitvale Station***