Tournament 16
Round 15

1. A dead hand pokes out between some rocks in this artist's painting of a Turkish warrior and an open-armed woman representing the title country. John Constable's The Hay Wain influenced the background of another of his paintings that depicts an Ottoman soldier amongst the survivors of a massacre. This artist of Greece on the Ruins of Missolonghi and The Massacre at Chios also painted a man in a top hot and boy wielding two pistols following a (*) bare-chested woman holding a tri-color flag. For 10 points, name this painter of Liberty Leading the People.
ANSWER: Ferdinand Victor Eugène Delacroix (duh-lah-KWAH)
030-10-23-15102
2. A type of volcano associated with these objects is called a tuya (TOO-yuh). When a nonvolcanic mountain peak pokes through one of these objects it is called a nunatak (NOON-uh-TACK). Their disappearance can cause isostatic rebound. They move via basal slip and plastic flow but when ablation exceeds accumulation, they (*) retreat, often leaving behind recessional moraines. For 10 points, name these large masses of ice which occupy Greenland and Antarctica.
ANSWER: glaciers [or continental glaciers]
091-10-23-15103
3. This author wrote a series of novels about a Hollow Earth, the Pellucidar novels. His Barsoom series features the character John Carter and includes novels such as Swords of Mars and A Princess of Mars. He is best known for creating a character whose father is killed by Kerchak. That character, whose original name is Lord (*) Greystoke, marries Jane Porter after being adopted by a tribe of apes. For 10 points, name this creator of Tarzan.
ANSWER: Edgar Rice Burroughs
024-10-23-15104
4. The design for this building was inspired by John Jacob Raskob standing a pencil on end. In 1945, a B-25 bomber crashed into this building, and this building's roof only saw one instance of its intended use as a zeppelin dock. This William Lamb-designed building features floodlights which were darkened to commemorate Fay Wray's death, and it bested the nearby (*) Chrysler Building in a competition for "tallest in the world". For 10 points, identify this iconic skyscraper in Manhattan. ANSWER: the Empire State Building
5. Charles Laveran won a Nobel in Medicine for identifying the cause of this disease. One medicine against this disease is called artemisinin. There are seven simian-infecting and five human-infecting species of the causative agent of this disease, with the falciparum variety accounting for most of the mortality. Resistance to this disease caused by (*) Plasmodium is possessed by patients of sickle-cell anemia. This disease can be treated by chewing on cinchona bark, which contains quinine. For 10 points, identify this disease spread by mosquitoes.
ANSWER: malaria
6. A rite of this religion sees a kannushi bless the groundbreaking ceremonies of buildings. After receiving an unfavorable fortune at a temple for this religion, tradition mandates tying the fortune to a tree or fence at that jinja. One festival of this religion symbolizing death and rebirth centers around rebuilding a temple every (*) twenty years. This religion became its home country's official state religion during the Meiji period. For 10 points, name this animistic Japanese religion that reveres kami. ANSWER: Shinto [or kami-no-michi]

002-10-23-15107
7. In December 2010 in this country, six years were added on to the sentence of one of this country's former oligarchs despite questionable evidence. That ruling at the hands of judge Viktor Danilkin came despite international pressure supporting Mikhail (*) Khodorkovsky. The president of this country agreed in April of 2010 to a treaty with the United States that will lower the number of both countries' strategic arms. For 10 points, name this European country whose president Dmitry Medvedev signed the New START treaty.
ANSWER: Russian Federation [or Rossiya; or Rossiyskaya Federatsiya]
023-10-23-15108
8. On his first two voyages, this man encountered a ruler with the title of Zamorin. This man was the first to be given the title of Count of Vidigueira by King Manual I. On his second voyage, he led an armada which bombarded Calicut. On his first voyage, this man named the South African province of Natal for its discovery on Christmas. This man, the first European to visit (*) Mombasa, sailed past the Great Fish River, which had proven the limit for his predecessor Bartolemeu Dias. For 10 points, name this Portuguese explorer, the first to sail directly from Europe to India.
ANSWER: Vasco da Gama
064-10-23-15109
9. Elizabeth Shoumatoff was painting a portrait of this man at his death. He borrowed a phrase from playwright Robert Sherwood in giving the "Arsenal of Democracy" speech. Another speech inspired a Norman Rockwell painting by listing the Four Freedoms. This man's first Inaugural Address asserted that "the (*) only thing we have to fear is fear itself," and another speech labeled December 7 as a "date which will live in infamy." For 10 points, name this Fireside chatter and four term Democratic president who presided over the New Deal and American entrance into World War II.
ANSWER: Eranklin Delano Roosevelt [or FDR; prompt on Roosevelt]
015-10-23-15110
10. This author wrote about Octave de Malivert's love with the title character in Armance, and also published a story collection called the Italian Chronicles. This man also wrote about a resident of Lake Como who attempts to join Napoleon's army before that man, Fabrizio del Dongo, ultimately retires to the titular residence. In addition to The $\mathbf{(}^{*}$ ) Charterhouse of Parma, this man wrote a novel whose protagonist is sentenced to death after shooting at Madame de Renal. For 10 points, name this French author who created Julien Sorel in The Red and the Black.
ANSWER: Stendhal [or Marie-Henri Beyle]
11. In one episode, this character wears a purity ring after he and his girlfriend Tammy attend a Jonas Brother concert. In "Best Friends Forever," his will ironically states that he doesn't want to be seen on television if he is in a vegetative state. In one episode, it was revealed that his parents were involved in a Cthulhu cult, resulting in his bizarre superpowers as Mysterion. As a result of his attire, most of his dialogue is heavily (*) muffled from the viewer. For 10 points, name this red hooded friend of Stan, Cartman, and Kyle who in a running gag was frequently killed off in early episodes of South Park.
ANSWER: Kenny McCormick
12. This city is located near Lake Washington, whose namesake ship canal is an important waterway for its commercial activities; another important channel is the Duwamish Waterway, which leads directly to its artificially created Harbor Island. Found east of the Kitsap Peninsula, it was the site of the 1983 Wah Mee Massacre in its Chinatown district. It hosted the $\mathbf{1 9 6 2}$ World's Fair, which led to the construction of its most notable building. The Frank Gehry designed (*) Experience Music Project can also be found here. For 10 points, name this city near Mount Rainier home to the Space Needle.
ANSWER: Seattle
040-10-23-15113
13. E to the negative product of minus thermodynamic beta times the energy is the formula for this man's namesake factor. The evolution of particle probability in a position-momentum phase space is given by his transport equation. His namesake constant is equal to the ideal gas constant divided by Avogadro's number. He co-names the (*) distribution of particle speeds in an ideal gas with James Maxwell. For 10 points, name this man whose gravestone states that entropy equals $\mathrm{k} \log \mathrm{W}$. ANSWER: Ludwig Eduard Boltzmann

001-10-23-15114
14. One debate about this symphony is whether Friedrich Hradetzky or E.C. Lewy performed the "fourth horn solo" in its third movement. This symphony's scherzo movement is unusually second instead of third. Its fourth movement starts with a theme and variations that quotes the first three movements, and contains a section in the Turkish style. Its final movement makes use of a chorus and includes a setting of (*) Schiller's "Ode to Joy." For 10 points, name this final symphony of Beethoven. ANSWER: Beethoven's Symphony No. 9 in D minor [or Choral symphony; or Beethoven's opus 125]
15. The imprisonment of this ruler's sister Joan led to his intervention in Sicily, which was then being ruled by Tancred I. At one point during his reign, he transferred power to his advisor William Longchamp. This ruler was sent on a military campaign following the Battle of Hattin. With Guy de Lusignan and Philip II of France, he led a successful siege of (*) Acre but failed to invade Egypt and strike a decisive blow to his rival Saladin. For 10 points, name this English king of the 1100's known for his bravery while campaigning in the Holy Lands during the Third Crusade.
ANSWER: Richard I of England [or Richard the Lionhearted; or Richard Coeur de Lion; prompt on Richard]
16. In one story, this god manages to get help from Baugi and Gunnlod in stealing from Suttung a special mead made from the blood of a man. This god decided to give up one of his eyes in order to take a drink from the well guarded by Mimir to increase his knowledge. Another attempt to gain knowledge involved this god ${ }^{(*)}$ ) hanging himself for nine days from Yggdrasil to learn the secrets of the runes. For 10 points, name this Norse deity who wields the spear Gungnir, rides the eight-legged horse Sleipnir, and controls the ravens Hugin and Munin.
ANSWER: Odin [or Wotan; or Woden]
17. In one poem by this writer, a "big boy doing a man's work" is called to supper by his sister, which results in a meeting between the boy's hand and the buzz saw he's using. In another piece by this poet, the narrator describes living near a man who "is all pine" while the narrator has an apple orchard. That poem includes the narrator considering saying that elves are behind the disrepair of the title (*) structure. For 10 points, name this American poet who wrote the poem "Out, Out-" and included the idea that "good fences make good neighbors" in the poem "Mending Wall."
ANSWER: Robert Lee Frost
18. The "dye" type of this device commonly consists of rhodamine ( ROH -duh-meen) G6 mixed with methanol. In these devices, a process called $q$-switching creates a state in which there are more atoms in an excited state than a ground state called population inversion. Theodore Maiman invented the first one in 1960 using a synthetic ruby to (*) stimulate the emission of radiation to amplify light. For 10 points, name these devices that commonly produce a coherent, red beam of light in devices such as CD players.
ANSWER: lasers [accept light amplification by stimulated emission of radiation before "stimulate" is read]

079-10-23-15119
19. The Action Programme promulgated by one leader led to this event. Many of its leaders went on to found the group Charter 77. Gustav Husak took power following this event, during which another leader promised "socialism with a human face." This event occurred during the presidency of (*) Alexander Dubcek and saw troops of the Warsaw Pact sent in by Soviet premier Leonid Brezhnev. This event is also the setting for Milan Kundera's The Unbearable Lightness of Being. For 10 points, name this 1968 uprising in the capital of the former Czechoslovakia.
ANSWER: Prague Spring
20. This work starts out with an unsuccessful attempt to put on a mystery play by the playwright Pierre Gringoire. A group of vagabonds in this novel led by Clopin are mistaken for enemies by the title character, who single-handedly kills much of that group. One character in this work falls in love with the captain of the King's Archers, Phoebus, and rebuffs the advances of the priest Claude (*) Frollo. For 10 points, name this novel in which the gypsy girl Esmeralda is unsuccessfully protected by the deformed, bell-ringing title character, Quasimodo.
ANSWER: The Hunchback of Notre-Dame [or Notre-Dame de Paris]
21. A river of this name rises in Mount Kruglaya and flows to Atyrau. Lake Karachay in the mountain range of this name was a dumping ground for radioactive waste. This range has a southern portion known as the Mugodzhar Hills, and it also has the Polar and Nether-Polar regions. The largest peak in this range is Mount $(*)$ Narodnaya. For 10 points, name this mountain range located in Kazakhstan and Russia that forms the traditional boundary between Europe and Asia. ANSWER: Urals
22. These objects are often described mathematically in Hessian normal form. The angle between the intersection of two of them is the dihedral angle. If one of these objects contains the point $\mathbf{r}|0|$ and a normal vector $n$, it can be defined as the set of points $r$ such that the dot product between $n$ and a vector from $r$ to the origin is equal to the zero vector. The different conic sections can be obtained by intersecting one or two (*) cones with one of these objects and they can be defined by using a minimum of three points. For 10 points, name this flat surface which is the two dimensional analogue of a line. ANSWER: plane
23. In one work by this composer, Ninetta hopes to marry Giannetto but is falsely accused of stealing a spoon. The evil governor Gesler appears in one work by this man, while another work sees a man assume the name Lindoro and includes the arias Largo al factotum and Una voce poco fa. In addition to The Thieving Magpie, this man composed an opera in which Count (*) Almaviva hopes to earn the love of Rosina. In another of his operas the title character shoots an apple off of Jemmy's head. For 10 points, name this Italian composer of such operas as The Barber of Seville and William Tell. ANSWER: Gioachino Rossini

1. The discovery of an erotic painting by Nirad sheds light on scandalous British novelist Flora Crewe in this author's play Indian Ink. For 10 points each:
[10] Name this Czech-born contemporary British playwright of intellectual comedies such as Arcadia and Travesties.
ANSWER: Tom Stoppard [or Tomas Straussler]
[10] In this Tom Stoppard play, two insignificant men from the Danish court find a letter instructing the King of England to kill them, after passing the time with trivia and coin-flipping.

## ANSWER: Rosencrantz, and Guildenstern are Dead

[10] Rosencrantz and Guildenstern originally appeared in this play, whose title Danish prince dies in a swordfight with Laertes.
ANSWER: Hamlet, Prince of Denmark
019-10-23-15201
2. Name these late night television hosts for 10 points each:
[10] This current host of NBC's The Tonight Show is known for his sizable car collection, his large chin, and his feud with Conan O'Brien.
ANSWER: Jay Leno
[10] In 2009 this host of CBS's Late Show revealed a blackmail attempt had been made on him after his affair with intern Stephanie Birkitt.
ANSWER: David Letterman
[10] This Scottish host of CBS's Late Late Show is backed up by a robot sidekick named Geoff Peterson. ANSWER: Craig Ferguson

015-10-23-15202
3. This thinker put forth his misogynistic views in his essay collection Parerga and Paralipomena. For 10 points each:
[10] Name this dour German author who wrote The World as Will and Representation.
ANSWER: Arthur Schopenhauer
[10] This British philosopher, the author of On Liberty and A System of Logic, advocated gender equality in the mid 1800s in his The Subjection of Women.
ANSWER: John Stuart Mill
[10] Schopenhauer wrote his dissertation on the "Fourfold Root" of the principle of sufficient reason, which was developed by this philosopher who was satirized as Pangloss and who co-invented calculus with Newton.
ANSWER: Gottfried Wilhelm Leibniz
4. Early in his career this artist studied under Thomas Hart Benton and painted such works as Male and Female and The She-Wolf. For 10 points each:
[10] Name this American painter who pioneered "action painting" by splattering paint on his canvases in such works as Blue Poles and Full Fathom Five.
ANSWER: Paul Jackson Pollock
[10] Pollock was part of the Abstract Expressionism art movement, which also included this artist who developed color field painting which such works as White over Red.
ANSWER: Mark Rothko [or Marcus Rothkowitz]
[10] Another abstract expressionist, Willem de Kooning, created a series of six paintings depicting this type of person, as well one depicting this type of person with a bicycle.
ANSWER: women [accept equivalents]
024-10-23-15204
5. In the late 1800 's, most of Africa was colonized by European powers. For 10 points each:
[10] This nation led by Leopold II colonized what is now the Democratic Republic of the Congo and became notorious for chopping off the limbs of dissidents.
ANSWER: Kingdom of Belgium [or Royaume de Belgique; or Koninkrijk Belgie]
[10] British colonization was driven in part by this South African politician and founder of De Beers. He proposed a railway stretching from Cape Town to Cairo.
ANSWER: Cecil Rhodes
[10] German forces committed the Herero massacre during the colonization of this modern day nation, formerly known as German South-West Africa. It was ruled by South Africa until 1990 following Germany's defeat in World War One.
ANSWER: Republic of Namibia
064-10-23-15205
6. They can be vertical, horizontal, or oblique. For 10 points each:
[10] Name these curves or lines that another curve approaches as an independent coordinate goes to infinity.
ANSWER: asymptote
[10] These asymptote containing functions are the ratio of two polynomials where the denominator isn't zero.
ANSWER: rational function
[10] For a hyperbola given by quantity $x$ squared over a squared minus y squared over b squared equals one, the slopes of the asymptotes are plus or minus this value.
ANSWER: b/a [bover a; or b divided by $\mathbf{a}$; or the ratio of $\mathbf{b}$ to $\mathbf{a}$; or -b/a]
001-10-23-15206
7. The Bohr Effect describes the effect of increased carbon dioxide on this protein. For 10 points each: [10] Name this tetramer protein that transports oxygen in red blood cells.
ANSWER: hemoglobin
[10] A mutation in the gene for hemoglobin causes this disease treated with hydroxyurea. It is most prominent in sub-Saharan Africa.
ANSWER: sickle-cell anemia [prompt on "anemia"]
[10] Hemoglobin gives a classic example of this form of regulation, in which the binding of oxygen to one binding site increases its affinity for the other binding sites on the protein.
ANSWER: allosteric regulation [accept equivalents like allostery or allosterism]
8. The writer Petronius is a character in this novel. For 10 points each:
[10] Name this novel condemning the Roman persecution of Christians, in which Marcus Vinicius falls in love with Ligia.
ANSWER: Ouo Vadis
[10] Quo Vadis was written by this creator of historical novels such as Fire in the Steppe and With Fire and Sword.
ANSWER: Henryk Sienkiewicz
[10] Henryk Sienkiewicz is from this country which also produced the science-fiction writers Boleslaw Prus and Stanislaw Lem.
ANSWER: Republic of Poland
064-10-23-15208
9. This president enacted the "Great Society" programs. For 10 points each:
[10] Name this Democratic president from Texas who gained the presidency after the assassination of John F. Kennedy.

ANSWER: Lyndon Baines Johnson
[10] This program created during Johnson's presidency was started by the Social Security Act of 1965. It gives health insurance to the elderly.
ANSWER: Medicare
[10] This NASA mission took place during Johnson's presidency. It saw the first astronauts orbit the moon.
ANSWER: Apollo 8 [prompt on Apollo]
001-10-23-15209
10. This composer wrote his "Fantaisie-Impromptu" for the Baroness d'Este. For 10 points each:
[10] Name this Polish-born French composer whose other works include his Nocturne No. 2 and the short "Minute Waltz."
ANSWER: Frédéric Francois Chopin [or Fryderyk Franciszek Szopen]
[10] Chopin wrote a number of these studies for the piano, including the "Revolutionary" and "Black Key" ones.
ANSWER: etudes
[10] Chopin wrote eighteen works of this type, a slow Polish dance in $3 / 4$ time that was used on more formal occasions than the mazurka.
ANSWER: polonaises [or polonez]
023-10-23-15210
11. One of these stories contrasts a wise man who builds his house on rock with a foolish man who builds his house on sand. For 10 points each:
[10] Name these short illustrative stories told by Jesus.
ANSWER: parables
[10] A parable in the gospel of Luke contrasts a rich man who goes to hell with a poor man of this name going to heaven. He shares his name with a brother of Mary and Martha of Bethany.
ANSWER: Lazarus
[10] A common parable compares the kingdom of heaven to one of these seeds, which is the smallest of the seeds but grows into a large plant.
ANSWER: mustard seed
12. This law gives an equation that relates the angles of incidence for a wave. For 10 points each:
[10] Name this law that describes the change in a wave as it passes into a new medium.
ANSWER: Snell's Law
[10] This value, represented by the letter $n$, is equal for a given medium to the speed of light in a vacuum over the speed of light in that medium. For water, it is equal to about 1.33.
ANSWER: index of refraction
[10] When light hits a medium at an angle greater than the critical angle, this outcome occurs instead of the light being refracted.
ANSWER: total internal reflection

023-10-23-15212
13. Henry Kellett rescued the expedition led by Robert McClure, who had gone looking for John Franklin's expedition in search of this waterway. For 10 points each:
[10] Name this waterway long sought by explorers as a way to travel from the Atlantic to the Pacific through what is now Canada.
ANSWER: Northwest Passage
[10] This English explorer, while attempting to find the Northwest Passage, was the victim of a 1611 mutiny and was set adrift in the bay that now bears his name.
ANSWER: Henry Hudson
[10] This Norwegian made the first successful traversal of the Northwest Passage, but remains better known for beating Robert Scott in a 1911 race to the South Pole.
ANSWER: Roald Engelbregt Gravning Amundsen
003-10-23-15213
14. This character is attracted to a woman named Weena. For 10 points each:
[10] Identify this unnamed literary character, an English scientist who encounters the brutish Morlocks and the childlike Eloi during his journeys.
ANSWER: Time Traveller [or anything to indicate he is the protagonist of The Time Machine]
[10] This English author created the Morlocks and Eloi in The Time Machine. His other pioneering science fiction work includes The War of the Worlds and The Invisible Man.
ANSWER: Herbert George Wells
[10] This Wells short story features a mountaineer named Nunez discovering the title region where everyone suffers from the same disability. Nunez tries to rule them without much success.
ANSWER: "The Country of the Blind"
052-10-23-15214
15. A series of articles in London's Morning Chronicle grew into this man's The High Price of Bullion, a Proof of the Depreciation of Bank Notes. For 10 points each:
[10] Name this British economist who protested the Corn Laws and who also popularized the idea of comparative advantage in his best known work.
ANSWER: David Ricardo
[10] Although Ferdinand Lassalle may have originated it, Ricardo is often given credit for developing this idea which argues that wages will stay near subsistence levels over time.
ANSWER: Iron Law of Wages
[10] Ricardo discussed the Iron Law of Wages and comparative advantage in this 1817 book, which ends with the chapter "Mr. Malthus's Opinions on Rent."
ANSWER: On the Principles of Political Economy and Taxation
16. This composer wrote the opera Antony and Cleopatra as well as the cantata Prayers of Kierkegaard. For 10 points each:
[10] Name this American composer of the opera Vanessa.
ANSWER: Samuel Barber
[10] Barber is best known for this elegaic work for string orchestra, which is based on the second movement of his string quartet.
ANSWER: Adagio for Strings
[10] Barber also arranged a choral version of Adagio for Strings with this text, which typically follows the Benedictus in settings of the Mass.
ANSWER: Agnus Dei
024-10-23-15216
17. The title character of this work breaks an eighty-four day dry spell by capturing a large marlin, but sharks eat it before he can get back to shore. For 10 points each:
[10] Name this novella centering on the travails of Santiago.
ANSWER: The Old Man and the Sea
[10] The Old Man and the Sea was written by this author of The Sun Also Rises and For Whom the Bell Tolls.
ANSWER: Ernest Hemingway
[10] In this Hemingway short story, the title character is killed by his unfaithful wife while they are out on a safari.
ANSWER: "The Short Happy Life of Francis Macomber"
18. Leaders of this city included Cleisthenes, who overthrew Hippias and expanded the Boule to 500 members. For 10 points each:
[10] Name this birthplace of democracy, the rival of Sparta.
ANSWER: Athens
[10] This Golden Age leader of Athens gave a famous Funeral Oration during the Peloponnesian War and commissioned the Parthenon.
ANSWER: Pericles
[10] Pericles partially prompted the Peloponnesian War by moving the center of this coalition of Greek states from its namesake island to Athens.
ANSWER: Delian League
015-10-23-15218
19. During this there is a decrease in fishery productivity on the western coast of South America. For 10 points each:
[10] Name this periodic occurrence of abnormally warm waters in the east Pacific Ocean.
ANSWER: EI Niño
[10] El Niño sees the weakening of these winds in the Pacific Ocean. They are easterly surface winds towards the Intertropical Convergence Zone.
ANSWER: trade winds
[10] The oceanographic effects of El Niño are coupled with this variation in atmospheric pressure which is measured by observing the pressure at Tahiti and Darwin.
ANSWER: southern oscillation
20. Because of its shipping importance, this waterway was declared international waters by the Treaty of Versailles. For 10 points each:
[10] Name this most heavily traveled artificial seaway in the world. It connects Brunsbüttel to Holtenau. ANSWER: Kiel Canal [or Kaiser Wilhelm Canal; or Nord-Ostsee Kanal]
[10] The Kiel Canal connects the North Sea to this sea around which the Hanseatic League was based. It provides the name for the group of countries that comprises Estonia, Latvia, and Lithuania.
ANSWER: Baltic Sea
[10] The Kiel Canal replaces travel around this peninsula, which is most commonly defined as the part of Denmark connected to mainland Europe.
ANSWER: Jutland
21. This country expelled Nazi Germany in the Lapland War in 1945. For 10 points each:
[10] Name this country invaded by Russia in 1939. Russia broke through its defensive Mannerheim Line to capture Karelia, but could not capture the capital of Helsinki.
ANSWER: Republic of Finland [or Suomi; or Suomen Tasavalta; or Republiken Finland]
[10] Finland's invasion by Russia in 1939 was given this name, suggesting the season during which it occurred. It resulted in Russia's expulsion from the League of Nations.
ANSWER: Winter War [or Talvisota; or Vinterkriget; or Zimnyana Voyna]
[10] The Winter War was ended by the Treaty of Moscow, but the peace ended in 1941 when Soviet Russia once again attacked Finland during this so-called war.
ANSWER: Continuation War [or Great Patriotic War; prompt on World War II; prompt on Eastern Front of World War II; prompt on Eastern Front]

