

Ladue Invitational Spring Tournament IV

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Round 4**Tossups**

1. In this novel, Mrs. Smith disowns one character for abandoning Eliza Williams, and that character is later compelled to marry Sophia Grey to keep his wealthy lifestyle. Sir John Middleton loans a family his cottage in Devonshire after they are forced out by Fanny, and the central characters are visited by (*) Lucy Steele. A character living in Barton Park is abandoned by John Willoughby in this novel, but that character, Marianne, eventually marries Colonel Brandon and her sister Elinor marries Edward Ferrars. For ten points, name this work by Jane Austen about the Dashwood family.

ANSWER: *Sense and Sensibility*

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2. In 1969, Richard Nixon implemented a plan named after this city that mandated federal employment quotas for minorities. The Paxton Boys marched in this city to protest the government's policy towards Native Americans. Ten percent of this city's residents died in a 1793 yellow fever epidemic. During the First Barbary War, a (*) ship named after this city was burned by Stephen Decatur. This site of the First Bank of the United States also housed the Second Continental Congress and the Constitutional Convention, both of which met in this city's Independence Hall. For ten points, name this "City of Brotherly Love" that is now the largest city in Pennsylvania.

ANSWER: Philadelphia [prompt on "Philly" and "City of Brotherly Love" before mention]

<BZ>

3. This country's mining town of Ouro Preto was founded during a 17th century gold rush, while a later rubber boom caused the growth of Belem and Manaus. The Pantanal wetlands lie mainly in this country and are home to a large population of capybaras. 16 curved columns hold up a hyperboloid cathedral in this country's capital, which was designed in 1956 by (*) Lucio Costa and Oscar Niemeyer. This country shares Iguazu Falls with its southwestern neighbor. It contains the largest city in the southern hemisphere, while its second largest is home to a statue of Christ the Redeemer and the annual Carnival. For ten points, identify this country home to Sao Paulo and Rio de Janeiro.

ANSWER: Federative Republic of Brazil [accept República Federativa do Brasil]

<JD>

4. This poem describes how "dews grew quivering and chill" after the narrator had "passed the fields of grazing grain" and "passed the setting sun." The speaker pauses before a house that seemed "a swelling of the ground" which had a "roof [that] was scarcely visible." The narrator "passed the school, where the children stove" and surmised that the (*) "horses' heads/ Were pointed toward eternity." Along with the title figure, the speaker of this poem rides in a "carriage [that] held but just [themselves]/And Immortality." For ten points, name this Emily Dickinson poem in which the title figure "kindly stopped for [her]."

ANSWER: "Because I could not stop for Death"

<KT>

5. The Aztecs used cochineal insects to create a dye of this color called carmine. William II of England was given a nickname denoting this color. During the Years of Lead, Italian Prime Minister Aldo Moro was murdered by an organization with this color in its name. During the French Revolution, the *sans-culottes* donned (*) Phrygian caps of this color. Those who partook in the Expedition of the Thousand under the command of Giuseppe Garibaldi wore shirts of this color, and it names an army that fought with the White Army during the Russian Civil War. For ten points, name this color associated with the Communist party.

ANSWER: red [accept Erik the Red, William Rufus, Red Brigades, Redshirts, or Red Army]

<BZ>

6. This country's current leader once spent a year in Muscatine, Iowa to learn about American agriculture, and is a member of the Princelings. Another politician from this country was sentenced to life imprisonment after his wife was implicated in the death of Neil Heywood. A (*) blind activist from this country escaped from house arrest in 2012 and sought refuge in the American embassy. This country, whose recent two-stage power change issued in its fifth generation of leadership, surpassed Japan as the world's second largest economy in 2010. For ten points, identify this Communist country whose current leader is Xi Jinping.

ANSWER: People's Republic of China [or Zhonghua Renmin Gongheguo]

<JD>

7. The father of this opera's title character hides behind a rock to discover the location of an army. Earlier in this work, that character claims he is only an officer and that his true identity is dead. Its "Grand March" is set to a procession featuring elephants. The main character of this work sings (*) "O Patria Mia" while waiting for a lover whom Ramfis later condemns and Amneris secretly loves. Radames is eventually sentenced to death by the Pharaoh's priests after he falls in love with the title character of this opera, who dies with him in a vault. For ten points, name this opera set in Egypt about an Ethiopian princess, written by Giuseppe Verdi.

ANSWER: Aida

<MP>

8. Galois theory can be applied to the symmetric type of these expressions, which also appear in Vieta's formulas. Weierstrass's theorem uses these to achieve a uniform approximation, and Cardano's theorem is used to solve a specific type of them. There are no general solutions to these expressions with degree (*) five or higher, and they can be simplified using synthetic division. Functions of this type are all continuous and differentiable, and they have at least one complex root according to the fundamental theorem of algebra. For ten points, identify these algebraic expressions that contain variables raised to a power, such as $2y$ and $3x$ plus 1.

ANSWER: polynomials [accept polynomial equations/functions/expressions]

<EC>

9. One character in this novel acquires a copy of the Gettysburg Address after discussing with John Harrison and learning that his son is an admirer of Abraham Lincoln. Father Vincent consoles the protagonist about a crime that Johannes Pafuri planned in this work. Theophilus Msimangu sends a letter to the protagonist early in this work, inviting him to take care of his ill sister, (*) Gertrude. James helps renovate the town of Ndotsheni despite the death of his son, Arthur Jarvis. For ten points, identify this South African novel written by Alan Paton in which Stephen Kumalo's son, Absalom, is executed.

ANSWER: Cry, the Beloved Country

<KT>

10. The endoplasmic reticulum of these cells can be visualized by the blue Nissl stain, and Santiago y Cajal improved upon a black silver stain for these cells developed by Camillo Golgi. Saltatory conduction occurs because extracellular fluid is in contact with these cells only at the (*) nodes of Ranvier. Glial cells like oligodendrocytes and Schwann cells secrete a myelin sheath that surrounds these cells, which are separated from other cells by synapses and transmit action potentials. For ten points, name these cells that feature dendrites and axons and comprise the nervous system.

ANSWER: neurons [prompt on “nerve cells” or “nerves”]

<BZ>

11. During the Kosovo War, one of these types of buildings in Belgrade was accidentally bombed by the United States. American soldiers played loud music outside of one of these buildings in Operation Nifty Package, while two of these buildings in Kenya and Tanzania were struck by truck bombs on the same day in 1998. A group of people trapped in one of these buildings was the subject of the failed Operation (*) Eagle Claw, which attempted to end the Iran hostage crisis. In 2012, Christopher Stevens was killed in one of these buildings in Benghazi. For ten points, name these buildings that house diplomats from foreign nations.

ANSWER: embassy or consulate [prompt on “diplomatic building” until diplomat is mentioned]

<JD>

12. This artist of *Rose and Driftwood* portrayed two curvy structures each topped with a cross in his depiction of the Taos Pueblo Landmark. He developed a system with Fred Archer which divides the gradation of color into ten different zones. This artist created a photo-essay of the Manzanar (*) Japanese-American internment camp and co-founded a group called *f/64* [F-stop-64] with other photographers. One of his most notable works depicts a large granite monolith surrounded by trees, *El Capitan*. For ten points, name this American photographer renowned for his black-and-white photos in Yosemite, including *Moon and Half Dome*.

ANSWER: Ansel Easton Adams

<KT>

13. The Burgers vector represents the amount of distortion in these entities, which are organized into 14 varieties by the Bravais classification. Their structure can be described using three miller indices, and anisotropic varieties often exhibit birefringence. Annealing and deformation can cause these materials to intergrow as (*) twins, and the Born-Haber cycle can be applied to find the enthalpy of formation of these solids, also known as the lattice energy. For ten points, identify these non-amorphous materials, with symmetries such as simple and face-centered cubic, that have an ordered pattern of constituents.

ANSWER: crystalline solid

<EC>

14. In the “Puppet Master” episode on *Glee*, this song was performed at the end, leading one critic to describe the performance as “absolutely [insane] and nonsensical.” One scene in the music video features an old man reading to a child while repeating the phrase “tchoff.” The singer is originally sitting in a couch eating chips before transforming into the title figure, who he says is (*) “like an angel in disguise” and asks if it can “communicate by Morse... to that horse.” It begins at a champagne party featuring men dressed as different animals and making their respective calls. For ten points, name this song and viral video produced by Ylvis about the way a furry mammal communicates.

ANSWER: “The Fox” or “What Does the Fox Say?”

<EC>

15. This man wrote a work which compared historical religions to “clothing” and rational religions to “bare humans.” Another one of his works proposed constitutional republics as a proper political means of attaining perpetual peace. This philosopher drafted three propositions regarding duty and authored a work which focuses on (*) *a priori* knowledge. He suggested following an unconditional, universal law that would function in all circumstances. For ten points, name this philosopher who wrote *Critique of Pure Reason* and introduced the categorical imperative in his *Groundwork of the Metaphysics of Morals*.

ANSWER: Immanuel Kant

<KT>

16. This author created a work in which Simon Dach chairs a meeting with several intellectuals after the Thirty Years’ War. In another one of this author’s novels, Walter Matern knocks out the teeth of his former Jewish friend Eduard Amsel, who is a genius of making scarecrows. This author of *The Meeting at Telgte* also wrote a novel whose protagonist joins (*) Klepp and Scholl to form the Rhine River Three Band and plays at the Onion Cellar Club. That main character is gifted with a precious instrument on his third birthday and resolves never to grow up. *Dog Years* and a work centering on Oskar Matzerath were written by, for ten points, what author of *The Tin Drum*?

ANSWER: Günter Wilhelm Grass

<KT>

17. One of these animals named after Alfred Leeds was one of the largest teleosts and may have been preyed upon by *Liopleurodon*. A primitive one of these animals that lived in the Carboniferous period was *Stethacanthus*, and that period saw the extinction of armored ones called placoderms, such as *Dunkleosteus*. Some of these animals possess electroreceptors called Ampullae of Lorenzini or a (*) lateral line to sense movement. One of these animals considered a “living fossil” is the coelacanth, which lacks a swim bladder that many ray-finned ones have. For ten points, name these aquatic animals, examples of which include piranhas and sharks.

ANSWER: fish [accept sharks or any other specific grouping or type of fish; prompt on “vertebrates” or “chordates”]

<BZ>

18. This man has dreams about a falling mountain and attacking bulls, and another of his dreams about a meteor foreshadows the arrival of a companion. This figure crosses Mount Mashu by passing two scorpion men and loses a bet after a woman bakes loaves of bread to show that this man could not stay awake for seven nights. A snake stole an (*) immortality-giving plant that this man sought after meeting the flood survivor Utnapishtim. This man was two-thirds god, and after he rejected Ishtar’s advances and helped kill the Bull of Heaven, his friend Enkidu was killed. For ten points, identify this Hero King of Uruk, who names an epic poem in Babylonian mythology.

ANSWER: Gilgamesh [accept Bilgamesh]

<BZ>

19. In 1996, this country switched its national currency to the hryvna after the karbovanet experienced hyperinflation. After Leonid Kuchma’s term ended in 2004, alleged voter fraud in this country led to the Orange Revolution and the eventual election of (*) Victor Yushchenko. During the reign of Joseph Stalin, millions of this country’s citizens died in the Holodomor famine. An Exclusion Zone in this country includes the city of Pripyat and was formed after a level 7 nuclear disaster at Chernobyl. For ten points, name this modern-day country home to the Crimea, where a Slavic kingdom once grew around its capital of Kiev.

ANSWER: Ukraine [accept Ukrayina]

<BZ>

20. Landau quantization in two dimensional systems can explain effects due to this entity, which produces a toroidal shape in tokamaks, and is also equal to the curl of the vector potential \mathbf{A} . A potential difference is formed when this is applied perpendicularly to the current in the Hall effect, and charge is multiplied by velocity cross this quantity to find the (*) Lorentz force. One can integrate this quantity around a closed loop to find the enclosed current according to Ampere's law, and Gauss's Law states that the net flux of this through a surface is zero. The SI unit of Tesla measures, for ten points, what counterpart to the electric field?

ANSWER: magnetic field [accept B]

<EC>

21. Controversy exists over shorter forms of this practice like misyar and mut'ah, which are carried out by some Twelver Shiites. In Orthodox Judaism, some people participate in a *shidduch* before engaging in this practice, which can result in the signing of a *ketubah*. According to Islamic law, a *mahr* must be paid during this process, which is called a (*) *Nikkah*. Jesus transformed water into wine during one of these events at Cana, explaining why Catholics hold this practice to be a sacrament. For ten points, name this process, which in Christianity is facilitated by a priest joining a man and woman in matrimony.

ANSWER: marriages [accept weddings; accept answers indicating marriage or weddings in a specific religion/culture]

<BZ>

22. The proposed Jonglei Canal would divert this river from its present course through the Sudd swamplands, which are inhabited by the Dinka and Nuer peoples. The furthest source of this river is either the Ruvyironza or the Nyabarongo River, both of which flow into the Kagera River. Jinja and (*) Juba lie on this river, whose longer branch flows through Lakes Kyoga and Albert, and whose shorter branch has its source in Lake Tana. The six cataracts of this river lie upstream from the Aswan High Dam, which creates Lake Nasser. Its White and Blue tributaries meet at Khartoum before flowing through Cairo. For ten points, identify this longest river in the world.

ANSWER: the Nile

<JD>

Bonuses

1. Bonus: This painting was one of many destroyed during the firebombing of Dresden. For ten points each:

[10] Name this Gustave Courbet painting which depicts a young man on the left holding a basket of the title objects while an older man holds a sledgehammer as they help build a road.

ANSWER: *The Stone Breakers* [or *Les Casseurs de pierres*]

[10] The painter of *The Stone Breakers*, Gustave Courbet, was friends with this other artist, who painted *Arrangement in Grey and Black* and used gold leaf for his work *Harmony in Blue and Gold: The Peacock Room*.

ANSWER: James Abbott McNeill Whistler

[10] One of James Whistler's depictions of the model Joanna Hiffernan is sometimes referred to as "*Symphony in*" this color. In Hokusai's *The Great Wave Off Kanagawa*, crests of this color are on top of the blue waves.

ANSWER: white

<KT>

2. Bonus: For ten points each: answer the following about the mysterious Voynich manuscript:

[10] While the script and text of the Voynich manuscript is completely unreadable, it might be one of these languages. These kinds of languages, exemplified by Klingon and Esperanto, are entirely man-made.

ANSWER: constructed language [accept conlang; accept planned, artificial, or invented language]

[10] The Voynich manuscript is sometimes hypothesized to be written in an Asian language, as it lacks these parts of speech. In English, these kinds of adjectives include "a", "an", and "the", and show the definiteness of a noun.

ANSWER: articles

[10] Another theory proposes that the Voynich manuscript is meaningless in itself, but rather contains ciphertext. Converting a message into ciphertext is one example of this action, which encodes and safeguards information.

ANSWER: encryption [accept word forms]

<BZ>

3. Bonus: In this work, the harpooner Fedallah is suspected to be the devil disguised as a human. For ten points each:

[10] Name this American novel which is set on a ship whose crew-members include the second mate Stubb, a Quaker named Starbuck, and a native of Kokovoko named Queequeg.

ANSWER: *Moby-Dick*; or, *The Whale*

[10] This author wrote about Ishmael and Captain Ahab in *Moby-Dick*. He is also known for a work in which Billy Budd accidentally kills John Claggart.

ANSWER: Herman Melville

[10] Melville wrote this collection of short stories, one of which is about Amasa Delano, *Benito Cereno*, and another is about a man who frequently responds to requests with "I would prefer not to," *Bartleby the Scrivener*.

ANSWER: *The Piazza Tales*

<KT>

4. Bonus: A transparent horseshoe-shaped skywalk was opened over this geographical feature in 2007. For ten points each:

[10] Identify this 277-mile long canyon in northwestern Arizona.

ANSWER: Grand Canyon

[10] Phantom Ranch, a resort village just north of the Grand Canyon, is notable for being one of only two places in the United States to perform this action via mules. The other place is Supai, also located in Arizona.

ANSWER: mail delivery [accept obvious equivalents]

[10] Supai is the capital of the Havasupai one of these geopolitical tracts of land, which are managed by the Department of the Interior. The largest one of these is owned by the Navajo people and occupies northeastern Arizona.

ANSWER: American Indian reservation [or Native American reservation]

<JD>

5. Bonus: He served Queen Omphale for a year after accidentally killing Iphitus. For ten points each:

[10] Name this immensely strong son of Zeus and Alcmene, a Greek hero who performed twelve labors.

ANSWER: Heracles [or Hercules]

[10] After killing the Hydra, Heracles used its poison to augment these weapons, with which he killed the Stymphalian Birds. Heracles bequeathed these weapons to Philoctetes, who killed Paris with them.

ANSWER: bow and arrows [prompt on “bow”]

[10] Heracles completed the twelve labors to atone for killing this woman in a fit of madness. This first wife of Heracles was a daughter of the Theban king Creon.

ANSWER: Megara

<BZ>

6. Bonus: Clytemnestra is killed in its second part for plotting the death of Agamemnon. For ten points each:

[10] Identify this trilogy written by Aeschylus which chronicles the House of Atreus. In its last segment, *The Eumenides*, Athena persuades the Erinyes for acquittal of the crime committed by Electra’s brother.

ANSWER: *The Oresteia*

[10] This French author retold the story of Orestes in his play *The Flies*. After Estelle tries to murder Ines by stabbing her, Garcin concludes that “Hell is other people” in a more famous play of his, *No Exit*.

ANSWER: Jean-Paul Charles Aymard Sartre

[10] In this trilogy by Eugene O’Neill, Christine poisons Ezra Mannon, a brigadier-general returning from the Civil War, instead of giving him medicine.

ANSWER: *Mourning Becomes Electra*

<KT>

7. Bonus: This film premiered at the 2013 Telluride Film Festival and was praised for its directing under Steve McQueen and acting by its cast, which included Michael Fassbender and Benedict Cumberbatch. For ten points each:

[10] Identify this historical drama film based off of the eponymous autobiography of Solomon Northup, who was portrayed by Chiwetel Ejiofor.

ANSWER: *12 Years a Slave*

[10] *Half Slave, Half Free*, another film based off of Northup’s autobiography, was directed by this African American. He is better known for directing *Shaft*, a movie about the title detective’s work in Harlem among Italian mobs.

ANSWER: Gordon Roger Alexander Buchanan Parks

[10] In *12 Years a Slave*, this actor plays Samuel Bass, a white carpenter who helps Northup contact his wife. This actor also starred in the *Ocean’s* trilogy, *The Curious Case of Benjamin Button*, and *Moneyball*.

ANSWER: William Bradley “Brad” Pitt

<EC>

8. Bonus: It can be used to find the number of ways of ordering n distinct objects in a row, and appears in the formula for binomial coefficients. For ten points each:

[10] Identify this function, which for an integer n , is equal to the product of all positive integers less than or equal to n . It is represented by an exclamation mark.

ANSWER: factorial

[10] In addition to one, this is the only other integer whose factorial equals one. As a result, choosing this many elements from a set is numerically equal to choosing all the elements from the set.

ANSWER: zero

[10] Large factorials may be approximated using this method, which is derived from the gamma function. It sets n factorial approximately equal to the square root of “ $2\pi n$ ” times the quantity n divided by e raised to the n th power.

ANSWER: Stirling’s approximation [accept Stirling’s formula]

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9. Bonus: One branch of this religion uses texts like the Heart, Diamond, and Lotus sutras. For ten points each:

[10] Name this Asian religion whose branches include Theravada and Mahayana. One subset of the latter, Zen, is practiced in Japan.

ANSWER: **Buddhism**

[10] Tenzin Gyatso, who heads one branch of Buddhism, currently holds this title. Friction with the Chinese government arose over who had the authority to select the next holder of this position.

ANSWER: **Dalai** Lama

[10] This Chinese religion incorporates Buddhist elements like the Dharma wheel and is heavily persecuted by the Chinese government, which is accused of illegally harvesting the organs of this religion's practitioners.

ANSWER: **Falun Gong** or **Falun Dafa**

<BZ>

10. Bonus: Its title character escapes a Moor with Xury and joins a ship headed towards Brazil. For ten points each:

[10] Name this novel in which the protagonist is shipwrecked and stranded on an island, where he befriends a black man named Friday. The main character's tale is modeled after the real-life castaway Alexander Selkirk.

ANSWER: **Robinson Crusoe**

[10] This English author wrote *Robinson Crusoe* and another work about the Great Plague of the year 1665, *A Journal of the Plague Year*.

ANSWER: Daniel **Defoe** [or Daniel **Foe**]

[10] This novel by Daniel Defoe describes a "fallen woman" who is a convict in Newgate Prison and marries five men throughout her life, one of which was her half-brother. She eventually settles with her Lancashire husband.

ANSWER: *The Fortunes and Misfortunes of the Famous* **Moll Flanders**

<KT>

11. Bonus: The Tolman-Oppenheimer-Volkoff limit is the minimal mass required to overcome electron and neutron degeneracy pressures to form these bodies. For ten points each:

[10] Identify these astronomical bodies that contain a gravitational singularity formed after the collapse of massive stars, from which not even light can escape.

ANSWER: **black holes**

[10] This surface around a black hole marks "the point of no return" at which the gravitational pull is so strong that not even light can escape from beyond this boundary.

ANSWER: **event horizon**

[10] Roger Penrose proposed a method to extract energy from this region around a rotating black hole. Objects in this region experience the Lense-Thirring effect by which they precess due to the rotating mass.

ANSWER: **ergosphere**

<EC>

12. Bonus: It complicated the development of a Halifax-Quebec road. For ten points each:

[10] Name this small-scale peaceful conflict that arose over a disputed boundary between Maine and Canada. During this event, tensions developed over lumber rights in the namesake river valley.

ANSWER: **Aroostook** War [prompt on "Pork and Beans" War]

[10] The dispute was ended by a treaty signed by the British Lord Ashburton and this American statesman. Earlier, he had rebuked Andrew Jackson by saying "Liberty and Union, now and forever, one and inseparable."

ANSWER: Daniel **Webster**

[10] Most of the Aroostook War took place during the presidency of this successor to Andrew Jackson. This man was nicknamed the "Little Magician" and lost his reelection bid to William Henry Harrison.

ANSWER: Martin **Van Buren**

<BZ>

13. Bonus: Kevyn Orr became emergency manager of this city after the governor declared a state of financial emergency. For ten points each:

[10] Name this city which recently filed for bankruptcy in July 2013.

ANSWER: **Detroit** [prompt on "Motor City" and "Motown"]

[10] This state's governor, Rick Snyder, was the one who declared Detroit to be in a state of financial emergency.

ANSWER: **Michigan**

[10] This former mayor of Detroit was convicted of fraud and racketeering in 2013, and resigned as mayor after he was convicted on other felony charges.

ANSWER: Kwame Malik **Kilpatrick**

<BZ>

14. Bonus: This effect is exhibited by rubbing a glass rod with silk. For ten points each:

[10] Identify this effect by which a material gets charged after coming in contact and transferring electrons with another object.

ANSWER: **triboelectric** effect or **triboelectric** charging

[10] The triboelectric effect is greatly enhanced by this force that is generated when two rough surfaces slide past each other.

ANSWER: **frictional** force

[10] Friction is proportional to this force directed perpendicular to a surface. It can be found for an inclined plane by taking the force of gravity multiplied by the cosine of the angle of inclination.

ANSWER: **normal** force

<EC>

15. Bonus: One of his characters, Halvard Solness, dies after he attaches a garland to a tower. For ten points each:

[10] Name this Norwegian playwright of *The Master Builder* and a work in which the wife of Jorgen Tesman commits suicide, *Hedda Gabler*.

ANSWER: Henrik Johan **Ibsen**

[10] Henrik Ibsen also wrote this play, in which Krogstad writes a letter about the forgery of a character who, in the end, slams the door and leaves her wedding ring behind, ending Torvald's marriage to Nora Helmer.

ANSWER: A **Doll's House** [accept **Et dukkehjem**]

[10] This other Ibsen play opens with a dinner party hosted by Hakon Werle, whose son Gregors gradually discovers truths in the Ekdal family. It ends with Hedvig using the pistol to shoot himself rather the title animal.

ANSWER: *The* **Wild Duck** [accept **Vildanden**]

<KT>

16. Bonus: He signed the Treaty of Ryswick with the League of Augsburg. For ten points each:

[10] Name this long-reigning Sun King of France, a member of the Bourbon dynasty who promoted royal absolutism.

ANSWER: **Louis XIV** [prompt on "Louis"]

[10] Louis XIV sought to control this class of people by requiring them to stay at Versailles for a period of time. They made up the Second Estate and those "of the sword" were differentiated from those "of the robe".

ANSWER: **nobles** or **nobility**

[10] This series of rebellions in Louis XIV's youth sparked his desire to pacify and control the nobles. They were named for a slingshot weapon used in the revolt and began due to the unpopularity of Cardinal Mazarin.

ANSWER: the **Fronde**

<BZ>

17. Bonus: One of these properties, boiling point elevation, can be calculated as i times “ K sub b ” times m . For ten points each:

[10] Identify these properties of solutions that only depend on the concentration of the solute.

ANSWER: colligative properties

[10] The aforementioned i is this term that measures the effect a dissolved solute has on colligative properties, and is equal to the number of discrete ions for dissociated ionic compounds.

ANSWER: van't Hoff factor

[10] Another colligative property related to boiling point elevation concerns the reduction of this point where a liquid changes to a solid. Salting roads in winter takes advantage of the decrease of this point.

ANSWER: freezing point [accept melting point]

<EC>

18. Bonus: One of its characters begins singing the romanza, “E lucevan le stelle.” For ten points each:

[10] Name this opera in which the title singer jumps off the edge of Castel Sant'Angelo after killing Baron Scarpia and discovering the execution of Mario Cavaradossi.

ANSWER: Tosca

[10] This Italian composer wrote *Tosca*, the unfinished opera *Turandot*, and a work in which Mimi dies from consumption, *La Boheme*.

ANSWER: Giacomo Antonio Domenico Michele Secondo Maria Puccini

[10] In this opera by Puccini, Benjamin Franklin Pinkerton's marriage to Kate leads to the suicide of Cio-Cio San, who was waiting for him for years with her maid Suzuki.

ANSWER: Madama Butterfly [or Madame Butterfly]

<KT>

19. Bonus: A precious purple dye extracted from sea snails was named after this city. For ten points each:

[10] Identify this ancient Phoenician capital city in modern-day Lebanon. Carthage was founded by colonists led by the semi-mythological Dido, who came from this city.

ANSWER: Tyre [accept Sour]

[10] The Phoenicians are credited with inventing biremes, which, like triremes and other polyremes, are a type of this oared warship rowed by namesake slaves that was popular with the Romans and Medieval Europe.

ANSWER: galley

[10] Galleys were prominently used in the Battle of Actium, which saw the navy of this man defeat the forces of Mark Antony and Cleopatra. This man would later become the first Roman emperor.

ANSWER: Augustus [or Octavian; or Octavius; or Emperor Gaius Julius Divi Filius Caesar Octavianus Augustus]

<JD>

20. Bonus: This organ is part of the cecum. For ten points each:

[10] Name this organ in the human digestive system, whose infection may require its removal, despite its potential role in boosting the immune system.

ANSWER: vermiform appendix

[10] Inflammation or rupture of the appendix may cause this condition, which results from an inflammation of the membrane that lines the abdominal cavity and organs in the cavity.

ANSWER: peritonitis [do not accept “periodontitis”]

[10] The appendix is connected to the cecum, which is the first segment of this structure. This part of the GI tract also includes the colon and rectum.

ANSWER: large intestine [prompt on “intestine”]

<BZ>

21. Bonus: Bartolomeu Dias rounded the Cape of Good Hope nine years before his first voyage. For ten points each:

[10] Identify this Portuguese explorer who became the first European to reach India by sea, stopping in east African cities like Malindi and Mombasa along the way.

ANSWER: Dom Vasco da Gama

[10] Almost a century before da Gama's journey, this Ming dynasty eunuch led several expeditions to east Africa. The giraffe that he brought back to China from Malindi was widely regarded as a mythical creature called *qilin*.

ANSWER: Zheng He [accept Cheng Ho]

[10] Malindi and Mombasa were a part of this historic region of east Africa, which was inhabited by its namesake Bantu ethnic group and saw a mix of Arab and African cultures.

ANSWER: Swahili Coast

<JD>

22. Bonus: Two characters in this work debate on whether "light the kettle" is a proper phrase. For ten points each:

[10] Identify this play in which the title device delivers orders for the hitman Ben to murder Gus. It ends with the two central characters staring at each other.

ANSWER: *The* Dumb Waiter

[10] This playwright wrote *The Dumb Waiter* and a work that centers on the piano player Stanley Webber, *The Birthday Party*.

ANSWER: Harold Pinter

[10] Harold Pinter is considered a member of this 1950s British literary group which also included Kingsley Amis and Allan Sillitoe. Its name was coined by the Royal Court Theatre in response to Osborne's work, *Look Back in Anger*.

ANSWER: "angry young men"

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