

Harvard Fall Tournament XI

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And with thanks to Harvard College, MIT Quiz Bowl, and various playtesters



Round 12

Tossups

1. **An attempt to portray this man's wife as a legitimate chemist failed miserably after she pronounced the formula of carbon dioxide as *codoi*, or "koh-two," during a speech. This man was inspired by Mao Zedong to declare a "cultural revolution" in his (*) July Theses. In an effort to increase his country's population, he outlawed almost all forms of contraception in Decree 770, and he employed a secret police known as the Securitate. A revolution growing out of protests in Timisoara overthrew this successor of Gheorghe Gheorgiu-Dej ["gyor-gyu dej"], who was then executed with his wife Elena on Christmas Day 1989. For 10 points, name this Romanian Communist dictator.**

ANSWER: Nicolae Ceausescu ["chow-SHESH-koo"]

2. **This poet compared exploring his lover's body to the exploration of America in "To His Mistress Going to Bed." One poem by this man describes "virtuous men [who] pass mildly away" and asserts, "Thy (*) firmness makes my circle just." This poet denied that a title entity was "mighty and dreadful," and he noted how the "two bloods" of him and his lover mingle after being "suck'd" by the title insect. One of this poet's *Meditations* contains the phrase "no man is an island." For 10 points, name this Metaphysical poet of "A Valediction: Forbidding Mourning," "The Flea," and the *Holy Sonnet* "Death be not proud."**

ANSWER: John Donne

3. **This element reacts with carbon monoxide to generate a liquid tetrahedral 4-coordinate complex; that process is exploited to purify this element in the Mond process. Hydrogenation reactions can be catalyzed by an alloy of this metal and aluminum named for (*) Raney. Like zinc, this metal usually occurs *only* in the plus-2 oxidation state, and like iron, cobalt, and gadolinium, this transition metal is ferromagnetic at room temperature. This metal is usually found with copper in its major ore, and a mixture of it and iron is a major component of the Earth's core. For 10 points, name this metal that actually only makes up one-fourth of its namesake coin.**

ANSWER: nickel (accept Ni)

4. **A Ray Bradbury story titled after one of these creatures reveals that it's just a steam engine. A monk plays a joke by erecting a sign saying one of these creatures will appear in a story titled after one of these creatures and "A Potter's Tale" that was written by Akutagawa. *The Lair of a* (*) "White" one of these creatures is described in a Bram Stoker book, and the third act of *Beowulf* depicts his ultimate death while battling one. The discovery of the Arkenstone follows an encounter with one in the Lonely Mountain by Bilbo Baggins in *The Hobbit*. For 10 points, name these fictitious creatures exemplified by Smaug, who just love to hoard treasure.**

ANSWER: dragons (prompt on things like reptiles or serpents or worms or wyverns, but outright accept worm after "Lair" is read)

5. In one case, this process produces an intensity function that varies as sinc-squared of position. In general, the output of this phenomenon is the Fourier transform of the transmission function in the limit where the parallel rays approximation can be used. This phenomenon has a (*) Fraunhofer type, and it limits image resolution to at most 1.22 times the wavelength. This phenomenon produces an intensity profile when light is shined through two slits, as in an experiment by Thomas Young, and a namesake “grating” using this phenomenon. For 10 points, name this process in which light rays ‘bend’ around obstacles, usually contrasted with reflection or refraction.

ANSWER: diffraction (prompt on “interference”)

6. One film made in this country centers on guests at a dinner party who become incapable of leaving it and was titled *The Exterminating Angel*. It’s not Spain or France, but Luis Buñuel began making films in this country after passing through it by chance. One director from this country was inspired by visions of a (*) faun to make a fairy tale-inspired film, and a director from this nation made a film using a score written almost entirely for drums and shot to look like one continuous take. Directors from this country made the films *Pan’s Labyrinth* and *Birdman*. For 10 points, name this nation whose directors include Guillermo del Toro and Alejandro G. Iñárritu.

ANSWER: Mexico (or United Mexican States or Estado Unidos Mexicanos)

7. A major work from Picasso’s Rose Period shows a naked boy with one of these animals. To avoid attention, Rosa Bonheur dressed as a man while sketching studies for her painting of a *Fair* of these animals, and a Gericault [“JERR-uh-coh”] painting shows several of these animals in (*) motion at Epsom. One of these animals pokes through a curtain in Henry Fuseli’s *The Nightmare*, and Kandinsky founded a movement named for a “Blue” man atop one of these animals. For 10 points, name these animals, one of which appears in Jacques-Louis David’s portrait of Napoleon “*Crossing the Alps*” while riding a rearing white one of these animals.

ANSWER: horses (or equines; or mares; accept Horse Fair before “these animals” is read)

8. Two characters in this play racistly discuss the difficulty of dealing with “Patels.” One character in this play pretends to be the American-Express executive Ray Morton and is crushed to learn the Nyborgs are deadbeats. Moss conceives a plan to sell some items in this play to Jerry (*) Graff, and James Lingk cancels a contract in it with a man who wins a contest to receive a new Cadillac. This play opens in a Chinese restaurant with Shelly “The Machine” Levine requesting access to the best “leads,” which he later steals to avoid being fired. For 10 points, name this play by David Mamet about real estate salesmen.

ANSWER: Glengarry Glen Ross

9. [Note to moderator: read the notes in italics slowly and pause slightly at the plus signs (+)]

This piece was commissioned by Natalya Sats and was completed in just four days. One theme in this work has the strings play the ascending sequence G(+)-C-E-G-A before descending back to G. A passage involving the (*) oboe and flute represents an argument between two birds, and a muted oboe portion at the end of this work implies a character’s death. Bassoons represent an old grandfather in this piece, while the cat is represented by a clarinet, and strings and French horns represent the two title characters. For 10 points, name this work meant to teach children about musical instruments, a work of Sergei Prokofiev.

ANSWER: Peter and the Wolf (or Petya i volk)

10. **O.B. Copping's joining one of these organizations was at the center of the Supreme Court case *Adair v. United States*, which was later invalidated by the Norris-La Guardia Act. Harry Truman's veto was overridden to pass the (*) Taft-Hartley Act, which greatly reduced the power of these organizations. Membership in these groups was prohibited in yellow dog contracts, and Samuel Gompers notably led one of them. During the 1960s, a boycott on grapes was started by one of these organizations led by Cesar Chavez. For 10 points, name these organizations which lobby on behalf of employees, such as the United Farm Workers or AFL.**

ANSWER: labor unions

11. **A book chronicling the "Deeds" of "Dukes" from this region was written by William of Jumièges. Feudalism was introduced to this region during the reign of its ruler Richard the Fearless. Charles the Simple granted this region as a namesake duchy to the Viking (*) Rollo. One man born in this region ordered a census that was recorded in the Domesday Book, and that man would sail a fleet from this region in 1066 to invade England before winning the Battle of Hastings. For 10 points, name this northern French region, where, nine hundred years after the birth of William the Conqueror, Allied forces would storm a beach on D-Day.**

ANSWER: Normandy (accept word forms, like Norman)

12. **One park in this state is home to rock formations called the "Kissing Camels" and Steamboat Rock. Montrose County in this state is home to the Black Canyon, which is carved by the Gunnison River. Mount Harvard and Mount Yale are part of this state's (*) Collegiate Range, and visitors to this state can tour ancient Pueblo ruins at its Mesa Verde National Park. The namesake of this state's tallest peak unsuccessfully tried to summit it, and it overlooks a city that contains the U.S. Air Force Academy. Suburbs of this state's capital and largest city include Aurora. For 10 points, name this state home to Pikes Peak and the "Mile High" city of Denver.**

ANSWER: Colorado

13. **This book opens with a note that it "is to be neither an accusation nor a confession," and Arthur Wesley Wheen originally translated it into English. This book is narrated in the first person until its end, which notes a day "so quiet and still" a report contains a single sentence. The protagonist of this book agonizes over (*) killing the Frenchman Gerard Duval, and receives Kemmerich's unused boots. One chapter after his friend Kat dies in his arms, the protagonist Paul Bäumer ["boy-mer"] is reported dead as well. For 10 points, name this notably unheroic novel by Erich Maria Remarque about the experiences of German soldiers in World War One.**

ANSWER: All Quiet on the Western Front (or Im Westen nichts Neues or anything similar to No News in the West)

14. **The Kashi Vishwanath temple to this god is based in the city of Varanasi. The epithet Jatin refers to this god's matted hair, which is also usually depicted turning into a river. This deity wields the damaru and trishula, otherwise known as a two-headed drum and (*) trident, and his mount is a bull named Nandi. This god drank poison during the churning of the ocean of milk, turning his throat blue. This god also possesses the aspect of the "cosmic dancer," and he is the father of Ganesha and the husband of Parvati. For 10 points, name this "destroyer" god, part of the Hindu Trimurti along with Brahma and Vishnu.**

ANSWER: Shiva (accept Nataraja after "cosmic dancer" is read)

15. **One study of this phenomenon had women perform an "initiation" by reading obscene words. Daryl Bem posed self-perception theory as an alternative to it, and "forced compliance" was posed as an explanation for it after Aronson and Carlsmith's "forbidden toy" study. (*) Effort justification results from this phenomenon. One experiment tested this phenomenon by paying participants either one or twenty dollars after turning pegs, and it was studied by Leon Festinger using a UFO cult whose prophecies failed to come true. For 10 points, name this phenomenon describing the discomfort when you hold opposing beliefs at the same time.**

ANSWER: cognitive dissonance (accept effort justification before it's read)

16. As of September 2016, a player nicknamed “darbian” holds the “speedrun” world record for this character’s first game. The second game with this character was released as the “Lost Levels” in the U.S., and he wields a water pump called F.L.U.D.D. in his first Gamecube game. This character befriended (*) Rosalina in his namesake “Galaxy” games on the Wii, and his enemies include turtle-like Koopas and mushroom-like Goombas. This character uses items like the Fire Flower, an invincibility star, and a size-changing red-and-white mushroom. For 10 points, name this plumber who frequently has to rescue Princess Peach from Bowser.
ANSWER: Mario (accept *Super Mario* [*Bros.*, *Sunshine*, *World*, or *Galaxy*])

17. By the Heine-Cantor theorem, every function of this kind between a compact metric space and a metric space possesses the uniform version of this property. These functions on a closed interval can be uniformly approximated by polynomials by the (*) Stone-Weierstrass theorem. A function of this kind on a closed interval will attain all intermediate values, and all differentiable functions have this property. For functions with this property, f of a equals the limit of f of x as x approaches a , meaning the function has no “holes” or “jumps.” For 10 points, name this property describing functions you can draw without lifting your pencil from the paper.
ANSWER: continuous (accept word forms like “continuity”)

18. During this war, William Dowsing was commissioned to destroy “superstitious” artifacts by the Earl of Manchester, who led a group of forces called the Eastern Association. The Solemn League and Covenant was drawn up during this war, and Thomas Pride led a namesake “purge” during this war that created the (*) “Rump Parliament.” At the Battle of Naseby in this war, forces known as the “Roundheads” defeated the “Cavaliers,” who supported Charles I. For 10 points, name this 17th-century conflict which ended with the establishment of a Commonwealth led by Oliver Cromwell.
ANSWER: (First) English Civil War (*Ed’s note: if you’re playing this in England, I guess prompt on Civil War*)

19. The M1 type of these cells metabolize arginine into nitric oxide, and the M2 type metabolizes arginine into ornithine. Tumor-associated examples of these cells develop from monocytes when cancer cells secrete CSF1 and VEGF. Specialized examples of these cells in the liver are called (*) Kupffer cells, and are involved in the breakdown of red blood cells. These cells use MHC Class II and lysosomal action to present antigens to helper T cells and activate the adaptive immune response. For 10 points, name these immune cells that engulf foreign matter, and whose name comes from the Greek for “large” and “eat.”
ANSWER: macrophages (prompt on just phages after “engulf” is read)

20. The King James Bible defines this term as “the substance of things hoped for, the evidence of things not seen.” Hebrews 11 centers on this term and lists several Old Testament figures in describing it. The Epistle of James involves a discussion of this concept without (*) “works,” and Romans 1 writes that “the righteous shall live” by it. When Peter fails to walk on water, Jesus criticizes him for having little of this quality. Martin Luther propagated the idea of *sola fide*, which refers to justification “by [this concept] alone.” For 10 points, name this Christian concept of trust in God, which one might have a “crisis of.”
ANSWER: faith

21. A “warrior-poet” from this modern-day country wrote about falconry in his book *Baz Nama* and was named Khushal Kattak. Rumi was born in the area of this modern-day country, and much of the literature in this country is written in its official languages of Dari and (*) Pashto. One book partially set in this country centers on the relationship between Amir and Hassan, was written by Khaled Hosseini, and was inspired by news that the Taliban had banned flying the kite toys. For 10 points, name this setting of *The Kite Runner*, which describes violence in its capital of Kabul.
ANSWER: Islamic Republic of Afghanistan

Bonuses

1. For 10 points each, name some things related to the Globe Theatre. No, not that one:

[10] The Gielgud Theatre was named the Globe Theatre from 1909 to 1997, after the theatre where most of this Elizabethan playwright's works were performed. This playwright's *Henry V* calls the Globe a "wooden O."

ANSWER: William **Shakespeare**

[10] The first production of the new Globe was a play written by this man's mother. This man won the Nobel for Literature in part for his *A History of the English-Speaking Peoples*, and another of his works has the line "Never in the field of human conflict was so much owed by so many to so few."

ANSWER: Winston **Churchill**

[10] As of September 2016, the now Gielgud Theatre has been running a play based on this book by Mark Haddon. This book is narrated by Christopher, a boy implied to have Aspergers.

ANSWER: *The **Curious Incident of the Dog in the Night-Time***

2. This man once caught three hundred foxes and placed torches in their tails to destroy the crops of his enemies. For 10 points each:

[10] Name this Biblical judge who died after pulling down the columns of the temple of the pagan god Dagon.

ANSWER: **Samson**

[10] This woman was Samson's lover and ultimately caused his downfall by making Samson reveal the source of his prodigious strength, which was his uncut hair.

ANSWER: **Delilah**

[10] Delilah betrayed Samson for this frequent enemy of the Israelites. Goliath was a prominent warrior of these people whose name has become synonymous in modern times with being uncultured or anti-intellectual.

ANSWER: **Philistines**

3. One sculpture on the campus of this university contains a spiral of numbers representing the number of women enrolled during each year since its founding. For 10 points:

[10] Name this university, the home of the Women's Table. Other sculptures displayed on its campus include Claus Oldenburg's *Lipstick on Caterpillar Tracks (Ascending)*.

ANSWER: **Yale** University

[10] A Yale undergraduate designed this landmark in Washington, D.C. Visitors to this monument walk down two ramps that meet at a right angle, and its main structure consists of two long gabbro walls.

ANSWER: **Vietnam** Veterans Memorial (or the **Vietnam** War Memorial)

[10] This Yale alumna designed both the Women's Table and the Vietnam Veterans Memorial. Ross Perot controversially called her an "egg roll" after she won the competition to design the latter.

ANSWER: Maya (Ying) **Lin**

4. Simple machines are fun for the whole family, at every age. For 10 points each:

[10] First, name this simplest of the simple machines, which has a mechanical advantage equal to its slope. It's basically a fancy name for a ramp.

ANSWER: **inclined plane** (prompt on **incline** or **plane** or **ramp**)

[10] The mechanical advantage of this machine is equal to the length of its axial lead, divided by its pitch. It can be viewed as employing a wrapped incline plane in its design.

ANSWER: **screw**

[10] If the mechanical advantage of a screw is equal to 3, this is the speed that the lead must be turning for the descending velocity of the screw to be equal to 3 millimeters per second.

ANSWER: **9** millimeters per second

5. A system for performing this action satisfies the Condorcet criteria if the winner would still win one-on-one against every other candidate. For 10 points each:

[10] Name this action which a democracy might use to elect a candidate to office. It's used with the Electoral College in the US.

ANSWER: **voting** (accept word forms)

[10] The US also uses this system in which a voter indicates their preferred choice, and the "first" candidate with the most votes wins. This system promotes a two-party system and the concept of "wasted votes."

ANSWER: **first-past-the-post** (prompt on winner-take-all)

[10] This other randomized selection process is used today to select from a pool of candidates to serve on a jury. It was also used to select ancient Athenian politicians.

ANSWER: **sortition** (prompt on demarchy; prompt on "drawing straws")

6. Researchers found that the volume of these structures is increased in conservatives compared to liberals. For 10 points each:

[10] Name this pair of almond-shaped structures. Among other senses, smell is fed directly to it by the olfactory bulb.

ANSWER: **amygdalae**

[10] The amygdala abuts directly into the hippocampus. Damage to the hippocampus can result in the anterograde form of this condition, in which new memories can't be formed.

ANSWER: anterograde **amnesia**

[10] Both the amygdala and hippocampus are part of this complex, interconnected "system" responsible for emotion and memory functions. It also includes the hypothalamus and fornix, and derives its name from the Latin for border.

ANSWER: **limbic** system

7. This event occurred after the arrest of the orator Henry Hunt. For 10 points each:

[10] Name this 1819 event in which 15 protesters were killed. Percy Shelley's "The Masque of Anarchy" was written in response to this event.

ANSWER: **Peterloo** Massacre

[10] The Peterloo Massacre occurred in this English city. Its booming textile manufacturing inspired the nickname "Cottonopolis," and its residents were featured in Friedrich Engel's *The Condition of the Working Class in England*.

ANSWER: **Manchester**

[10] Manchester was an epicenter of this 19th-century period, in which small, home-based labor was replaced with large-scale manufacturing, often taking place in factories using new machines and innovations such as steam power.

ANSWER: **Industrial Revolution**

8. The narrator of one novel by this author compares the heads of two whale carcasses to the philosophies of Locke and Kant. For 10 points each:

[10] Name this author who opened his *Moby Dick* with the immortal line "Call me Ishmael."

ANSWER: Herman **Melville**

[10] The title sailor of this Melville novel is hanged after he fatally stabs John Claggart, the master-of-arms of the HMS *Bellipotent*.

ANSWER: **Billy Budd**, *Sailor*

[10] The plot of this Melville novella centers around Amasa Delano's time aboard the *San Dominick*. Delano believes the ship is captained by the title character but in reality, it has been overtaken by a slave revolt.

ANSWER: **Benito Cereno**

9. Protests erupted in a university in this country after the 2016 arrest of the student union president Kanhaiya Kumar on sedition charges. For 10 points each:

[10] First, name this country, the site of the aforementioned Jawaharlal Nehru University. This country's current prime minister is Narendra Modi.

ANSWER: Republic of **India**

[10] Kumar was arrested after students protested the execution of separatists from this region that is disputed between India and Pakistan. Part of this region spent 53 days under curfew in July 2016 after the killing of militant Burhan Wani.

ANSWER: Jammu and **Kashmir**

[10] The student protestors were heavily criticized by this party headed by Modi. Many of its members advocate for Hindu nationalism, and it opposes the Congress Party.

ANSWER: **Bharatiya Janata** Party (or **BJP**)

10. *The Long Halloween* covers a year in which this hero hunts a serial killer. For 10 points each:

[10] Name this superhero. Another book about his *Year One* describes how he first allies with Harvey Dent and Jim Gordon.

ANSWER: **Batman** (accept the **Dark Knight**, the **Caped Crusader**, the **World's Greatest Detective**; *Ed's note: don't tell the Joker, but accept either part of Bruce Wayne*)

[10] A team based in Valencia that plays this sport uses a bat in its logo. Other Spanish clubs most famous for playing this sport include Real Madrid and Barcelona.

ANSWER: **soccer** (or **football** or **fútbol**)

[10] The grotesque Bat Boy was first invented in this tabloid, which also regularly publishes crazy stories like the discovery of aliens and news that Elvis is alive.

ANSWER: **Weekly World News** (or **WWN**)

11. For 10 points each, answer some questions about unresolved questions in math and science:

[10] Physicists have yet to figure out the exact nature of the kind of energy and matter prefixed by this adjective. This adjective refers to the "invisibility" of that energy and matter to all electromagnetic radiation.

ANSWER: **dark**

[10] It is unknown whether the product of e and π can be grouped as one of these non-algebraic numbers. While all of these numbers are irrational, the reverse is not true.

ANSWER: **transcendental** numbers

[10] The paradox of the plankton asks why the wide diversity of phytoplankton species appears to contradict this ecological principle. This principle is also known as Gause's law, and it leads to the development of ecological niches.

ANSWER: **competitive exclusion** principle

12. Ariosto's epic about this character "Furioso" is a continuation of Boiardo's epic of this character "in Love." For 10 points each:

[10] Name this knight under Charlemagne. In a different French epic poem, he blows a horn so hard that his temples burst while defending Roncevaux pass.

ANSWER: **Orlando** (or **Roland**; accept **Orlando Furioso** or **Orlando Innamorato**; accept *The Song of* **Roland** or *La Chanson de* **Roland**)

[10] Orlando falls ridiculously in love with this pagan princess, and even fights his friend Rinaldo over her.

ANSWER: **Angelica**

[10] Angelica spurns Orlando, and Astolpho has to venture to this location to find Orlando's lost wits. In a Jules Verne novel, a cannon is used to propel men from Earth to this nearby celestial body.

ANSWER: the **moon** (or La **Luna**)

13. Andrew Jackson warned that the namesake of this legislation “wasn’t a man to be trusted with the nation’s cash.” For 10 points each:

[10] Name this 1845 adjustment in the tax levied on imports, named for the then-Secretary of the Treasury. It was a significant reduction from the earlier “Black Tariff.”

ANSWER: Walker Tariff

[10] The Walker Tariff was one of the four major goals of this president’s administration. The Oregon Treaty and the Treaty of Guadalupe Hidalgo were both signed during his tenure.

ANSWER: James K(nox) Polk

[10] Polk sent Nicholas Trist to negotiate the Treaty of Guadalupe Hidalgo with this country, which had to give up territory in what is now California, Arizona, and several other southwestern states.

ANSWER: Mexico (or the United Mexican States)

14. [NOTE to moderator: do not reveal promptable answers to the first part!] Many artifacts from this civilization depict their creator god Makemake [“MAH-kee-MAH-kee”]. For 10 points each:

[10] Give the indigenous name of this Polynesian peoples. Their civilization probably collapsed due to the massive deforestation they undertook to create their most famous artifacts.

ANSWER: Rapa Nui (prompt on, *but do not reveal* Easter Islanders or equivalents)

[10] The Rapa Nui created giant stone heads called moai on this island currently owned by Chile. Jacob Roggeveen named this island after the holiday on which he discovered it.

ANSWER: Easter Island (prompt on Rapa Nui, I guess, since that’s what the Rapa Nui call it)

[10] This Norwegian explorer visited Easter Island, where he demonstrated the feasibility of transporting and erecting moai. He also sailed across the Pacific in his raft *Kon-Tiki*.

ANSWER: Thor Heyerdahl

15. This singer notoriously lost 80 pounds in the frightening span of only two years. For 10 points each:

[10] Name this opera performer whose svelte figure and expressive singing earned her the title “the Divine.” She most famously sang the title role in Bellini’s *Norma*.

ANSWER: Maria Callas

[10] Callas sang in this register. It’s the highest of the female registers, and thus the highest overall.

ANSWER: soprano

[10] Callas made surprising comic turns in this composer’s operas *Il turco in Italia* and *Il barbiere di Siviglia* -- or *The Turk in Italy* and *The Barber of Seville*.

ANSWER: Gioachino Rossini

16. Do quizbowl ranker Fred Morlan’s job for him, and help predict some quizbowl results. For 10 points each:

[10] First, you’ll need to find how much the teams vary from the mean by getting this “standard” measure. It’s the square root of the variance, and 95% of the data lies within two of these widths in a bell curve.

ANSWER: standard deviation

[10] Then, you can predict the actual games by using this “simple” fit. It’s different from similar multiple or polynomial types, and predicts *y*-values using a single explanatory *x*-variable.

ANSWER: simple linear regression (prompt on regression; prompt on just lines, I guess)

[10] Once the games actually happen, you can see how well you did using this value. It measures the approximate difference between a predicted data set and the actual data set, and *r* squared is equal to one minus this value over the TSS.

ANSWER: residual sum of squares (or RSS; prompt on residuals or sum of squares; accept sum of squared residuals and other word orders and SSR; accept sum of squared errors of prediction or SSE)

17. Valery Polekh premiered Reinhold Glière's B-flat major concerto for this instrument. For 10 points each:

[10] Name this instrument. Herbert von Karajan and the Philharmonia Orchestra accompanied Dennis Brain in the definitive recording of Mozart's concertos for it, which were written for Joseph Leutgeb.

ANSWER: French **horn** (or natural **horn**)

[10] Mozart wrote this many horn concertos. The horns introduce the second movement theme of Brahms' symphony of this number, which was his last, and symphonies usually have this many movements.

ANSWER: **four**

[10] This Baroque composer's Opus 4 is a collection of concerti grossi known as *La stravaganza*, though his most famous work featuring that number is probably *The Four Seasons*.

ANSWER: Antonio **Vivaldi**

18. One species of this animal went unstudied for years because sailors couldn't stop eating the specimens they were transporting back. For 10 points each:

[10] Name these reptiles. A Roman military formation named for them used a wall of shields in imitation of this animal's shell.

ANSWER: **tortoise** (or **turtle**; or giant **tortoise**; accept any other specific species)

[10] A snapping turtle named "Ograbme" bites a barrel-carrying man in the butt in a political cartoon attacking the Embargo Act, which was signed into law by this early American president.

ANSWER: Thomas **Jefferson**

[10] The turtle ship was designed by this Korean admiral to repel invasions. After his death at the Battle of Noryang, his nephew wore his armor and beat his war drum to keep morale high.

ANSWER: **Yi** Sun-sin

19. Śūdraka's play *The Little Clay Cart* was written in this language. For 10 points each:

[10] Name this language prominently used by Kālidāsa, who used it to write the plays *The Recognition of Shakuntala* and *The Cloud Messenger*.

ANSWER: **Sanskrit** (or **sanskrtam**)

[10] Sanskrit was also used to write this ancient Indian epic traditionally ascribed to Valmiki. In it, the title Indian prince ventures to rescue Sita from the demon Ravana.

ANSWER: the **Ramayana**

[10] An award for Sanskrit literature is still given annually by this "Akademi," along with for 23 other Indian languages. In 2015, dozens of writers returned their awards to this "National Academy of Letters" as part of a political protest.

ANSWER: **Sahitya** Akademi (prompt on Indian National Academy of Letters)

20. You've considered buying your date a flower, yes ... but what about turning into one? For 10 points each:

[10] After rejecting Echo, this guy fell in love with his own reflection in a pond, leaving his body to become his namesake flower. This figure thus names the word for people who generally just love themselves.

ANSWER: **Narcissus** (accept **narcissists**, I guess, since it coincidentally sounds the same)

[10] Following a competition over him by Persephone and Aphrodite, this beautiful youth was gored by a boar. Aphrodite responded by creating his namesake flower, a blood-red anemone.

ANSWER: **Adonis**

[10] This nymph rattled out Helios's affair with Leucothea, then sat and pined for Helios until she became a heliotrope. Modern versions usually have this nymph turning into a sunflower instead.

ANSWER: **Clytie**

21. For 10 points each, “build up” your knowledge of electron configurations by answer the following questions:
[10] The name for this principle comes from the German word for “building up.” It states that electrons fill the lowest available energy levels before filling higher energy ones.

ANSWER: **Aufbau** principle

[10] One of the implications of the Pauli exclusion principle is that two electrons in the same orbital must have different values for this quantity. Electrons can have a +1 or -1 value for this intrinsic angular momentum.

ANSWER: **spin**

[10] Exceptions to the Aufbau principle include chromium, copper, and this precious metal with atomic number 46. Its ability to absorb hydrogen readily makes this transition metal a promising medium for hydrogen storage.

ANSWER: **palladium** (prompt on Pd)