

ATHENA (Academic Tournament for High School Education N' Achievement) II

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PACKET 10 TOSSUPS

1. During this programmatic piece, the melody suddenly stops but then is redoubled on the bass clarinet to represent a certain object continuing to act after being split in two. This F major scherzo was popularized by a short which introduced the character Yen Sid. The main “dotted quarter, dotted quarter, triplet, half” motif of this piece is played throughout by three bassoons. Leopold (*) Stokowski made the most famous recording of this piece by Paul Dukas, which is based on a Goethe poem, for a scene in Fantasia starring Mickey Mouse. For 10 points, name this tone poem depicting a student bringing a broom to life with his master’s magic.
ANSWER: *The Sorcerer’s Apprentice*

2. Following Croce, R G Collingwood argued for four types of them including a "proper" one in a book titled for *The Principles of a certain subject*. Arthur Danto introduced a namesake "world" of these things key to understanding them. Helen Gardner wrote a textbook on these things *Through the Ages*. Their "aura" has been destroyed by modern capitalist practices according to Walter (*) Benjamin. John Dewey proposed treating them "as Experience." Clement Greenberg differentiated between the "avant-garde" and "kitsch" in these things. For 10 points, name these things, examples of which include *Dogs Playing Poker*, Beethoven's Fifth, and Van Gogh's *A Pair of Shoes*.
ANSWER: artworks [or works of art; prompt on anything more specific, e.g. paintings, poems, music] <CS; Philosophy and Social Science>

3. The second section of this song is allegedly a reference to "Mamma, quel vino e generoso" from Mascagni's *Cavalleria Rusticana*. John Deacon's namesake amp is used to close this song, which appears between "Good Company" and a cover of "God Save the Queen" in *A Night at the Opera*. Its lyrics reference Rafael Sabatini's *Scaramouche*, right before shouts of "Bismillah." The singer laments "life had just begun" before asking his (*) mother to "carry on as if nothing really matters." The speaker asks "So you think you can love me and leave me to die?" in the last verse, after which the outro repeats "Nothing really matters." For 10 points, name this song by Queen.
ANSWER: "Bohemian Rhapsody" <Popular Culture>

4. One leader of this country called a snap election in 1984 while visibly drunk on national television. The victor of that election here, David Lange, appointed a finance minister who created a monetary policy of market-led restructuring and deregulation, his namesake Rogernomics. This nation once led by Rob Muldoon was the first to grant women the right to vote. The indigenous people of this nation fought amongst themselves after discovering the namesake (*) weapon in the Musket Wars. This nation became a British colony via the Treaty of Waitangi. For 10 points, name this home of the Maori people with capital at Wellington.
ANSWER: New Zealand <BA>

5. A meeting held in this location is considered illegitimate by the sedevacantist movement; that meeting ejected Marcel Lefebvre. A meeting in this location asserted the primacy of Peter in *Pastor aeternae*. Through the documents *Nostra aetate* and *Dignitatis humanae*, a meeting in this city promoted religious freedom and declared that the Jews did not kill Jesus. A meeting in this city declared that doctrines issued (*) *ex cathedra* are infallible, and was prompted by the Syllabus of Errors of Pius IX. The last two Catholic church councils were both held in this city. For 10 points, name this city which employs Swiss Guards and is governed by the Pope.

ANSWER: Vatican City [accept either Vatican I or Vatican II]

6. For any integer n , this scientist's namesake function takes the Kronecker delta function of n 's distinct prime divisors and n 's prime factors, multiplied by the Liouville function of n , to determine whether n is square-free. Johann Listing modified a figure named for this mathematician to discover parabolic rings. Like the torus, that surface named for this man has Euler characteristic zero, and is (*) non-orientable. Further, two of those namesake shapes can be glued together to create a Klein bottle. Giving a half-twist to a rectangle and gluing its ends together creates a shape he names which has only one edge. For 10 points, identify this namesake of a one-sided strip.

ANSWER: August Ferdinand Mobius [or Moebius] <CS>

7. This politician rose to prominence with a campaign ad produced by the film company Means of Production. After losing an election to this politician, a congressman dedicated a guitar rendition of "Born to Run" to her. This politician accused that opponent of running a third-party campaign against her because he had already won the Working Families Party nomination. She has recently become the (*) youngest woman ever elected to Congress. For 10 points, name this democratic socialist who defeated Joe Crowley to win a Democratic congressional primary in New York in June 2018.

ANSWER: Alexandria Ocasio-Cortez <CC>

8. Arkady Migdal proposed that this phenomenon may exist in neutron stars due to the Cooper pairing of nucleons. Quasiparticles called rotons were the basis of Lev Landau's explanation of this phenomenon. One substance which exhibits this phenomenon forms (*) Rollin films and is able to "creep" up the walls of a container. This phenomenon occurs below the lambda point, which is far higher in helium-4 than helium-3 since its particles are bosons rather than fermions. For ten points, name this phenomenon in which fluids exhibit zero viscosity.

ANSWER: superfluidity <AB>

9. Description acceptable. This ability is inhibited by MRKH Syndrome and by an overabundance of ASA. The drug Clomiphene enhances this ability. A condition called PCOS also inhibits this ability, as does obesity, since both lower levels of FSH, Anti-Mullerian hormone, and luteinizing hormone. Mutations to ZP1 inhibit it by causing a malformed zona pellucida. The loss of this ability is the most usual condition that leads to (*) hot flashes. It is highly negatively correlated with age, which is metaphorically referred to one's "biological clock" that "ticks" until menopause. For 10 points, identify this ability inhibited by an ovarian reserve of zero, which allows one to become pregnant.

ANSWER: fertility [or fecundity; or clear equivalents like the ability to have a child; prompt on having periods and the like] <CS>

10. A *son of this ruler* died in a riding accident after killing a sacred cow, arousing suspicions of divine intervention. An enemy of this leader was promised that “he would destroy a mighty empire” if he were to campaign against this leader. That campaign against this leader failed largely due to the defection of Harpagus. During a campaign in Central Asia, this ruler met an end at the hands of Queen Tomyris and the Massagetae. This ruler’s namesake (*) cylinder is the earliest known declaration of human rights, and this ruler freed the Jews from the Babylonian Captivity. For 10 points, name this Persian founder of the Achaemenid Empire.
ANSWER: Cyrus the Great (accept Cyrus II) <KK>

11. A temple called the Torreón is dedicated to a god of this domain, as is the Coricancha. A "God G" who reigned over this domain was called Kinich Ahau. "Hitching posts" were erected for a god of this domain celebrated in the Raymí festival. The humble, sore-covered Nanahuatzin was the first of several gods of this thing. Hunahpu took control of this thing after using his blowgun to knock down (*) Seven Macaw. An Incan god of this thing was a son of Vairacocha named Inti. Huitzilopochtli, often represented as a hummingbird, was an Aztec god of this thing, For 10 points, name this object to which the Aztecs gave human sacrifices so that it would not turn black, associated with the Greek Titan Helios.
ANSWER: the Sun <CS; Religion and Mythology>

12. One novel by this author chronicles Helen Shaw growing up in a gold-mining town. In another novel, she wrote about Julie’s struggles with living in a foreign country after meeting Abdu. This author of *The Lying Days* and *The Pickup* depicted Jessie Stilwell witnessing Gideon and Ann navigate the difficulties of their relationship. This author also wrote about Rosa coming to terms with Lionel’s communist activism and (*) Mehring discovering a corpse on his farm. This author of *Burger’s Daughter* wrote about Bam and Maureen Smales living with the title character during a fictional civil war. For ten points, name this South African author of *The Conservationist* and *July’s People*.
ANSWER: Nadine Gordimer <CM>

13. Picasso quoted one of this artist's paintings by replacing the figures on the right with UN forces in the bifurcated composition of his *Massacre in Korea*. In a chaotic painting by this artist which lacks a singular focal point, a tan-shirted man leaps at a scimitar-wielding soldier to knock him off his horse, while a man with a raised knife pulls a bloodied red-trousered turban-wearing man off a white horse. This artist's (*) *Charge of the Mamelukes* depicts an uprising the day before a scene he painted with lighting from a square lantern. A pile of bodies lies below a white-shirted man with stigmata in front of a firing squad in--for 10 points--what Spanish artist's *The Third of May, 1808*?
ANSWER: Francisco de Goya <CS>

14. In this work, a character declares they will not “run mad” till a “hot January”. Men are compared to “valiant dust” and “clods of wayward” mud in this play, and in a musical interlude, ladies are told to “sigh no more” because men are deceivers and frauds. That musician tells a woman at a masked ball he loves her despite the fact she says her prayers out loud in this play, though (*) Margaret visits Borachio instead of Balthasar for a nighttime liaison as part of Don John’s plan to convince Claudio of Hero’s infidelity. For ten points, name this Shakespearean play where Beatrice and Benedick go from enemies to lovers.
ANSWER: Much Ado About Nothing <TDG; British Literature>

15. **One player of this instrument recorded *The Legendary Sessions* with Chet Baker, featuring tracks like “If You Could See Me Now”. That player of this instrument played “Gloria’s Step” on his album *Sunday at the Village Vanguard*. This instrument was played by Bill Evans and Art Tatum. One player of this instrument is best known for (*) “Watermelon Man”. One player of this instrument composed “Straight, No Chaser” and “Round Midnight”, and another player of this instrument who collaborated with Paul Desmond recorded “Take Five”. Herbie Hancock, Dave Brubeck, and Thelonious Monk were players of, for 10 points, what instrument with black and white keys?**

ANSWER: piano <NR>

16. **The Goldschmidt classification predicts elements which tend to form compounds with this periodic group are found near the surface. Glasses named for their inclusion of these elements are integral to re-writable CDs. One of these elements characterizes the non-standard 21st protein-forming amino acid, an analogue to cysteine which itself notably contains one of these elements. This group is often named for the fact that most metals form (*) ores like hematite and pyrite by bonding with elements in this group. For 10 points, name this group of compounds which have 6 valence electrons, informally known as the family of the element with atomic number 8.**

ANSWER: oxygen group [or chalcogens before mention; accept group 6A or group 16; accept any answer with "family" in the place of "group"] <CS>

17. **This author asks the reader to “Lift your eyes upon the day breaking for you” in a poem which begins “A Rock, A River, A Tree.” In another poem, this poet promises to perform the title action “Just like moons and like suns, / With the certainty of tides.” This poet of “Still I Rise” wrote a novel where Mr. Freeman rapes a sister of Buddy from (*) Stamps, Arkansas and which ends with her giving birth to her son Guy. This poet read aloud a poem at Bill Clinton’s presidential inauguration, “On the Pulse of Morning.” For ten points, name this African-American poet who wrote *I Know Why the Caged Bird Sings*.**

ANSWER: Maya Angelou [accept Marguerite Johnson] <CM; American Literature>

18. **This event was kickstarted by the discovery of gold near the city of Dahlonega [duh-LA-na-ga]. During this event, many froze to death waiting for Berry’s Ferry to take them across the Ohio River. A half-Scottish man named John Ross convinced General Winfield Scott to grant him more autonomy over this event. This event was enabled by Elias Boudinot’s Treaty Party, who signed a controversial agreement at (*) New Echota. This event was the subject of the court case *Worcester v. Georgia*, which Andrew Jackson ignored by signing the Indian Removal Act. For 10 points, name this forced relocation to Oklahoma of Native American tribes.**

ANSWER: Trail of Tears (prompt on Indian Removal until mentioned) <KK>

19. **Before this engagement, the losing commander had planned to make his offensive between the Pleisse and Parthe Rivers to split his troops into sectors under the commands of Marshals Auguste de Marmont and Jacques MacDonald. During the French retreat from this engagement, a corporal’s mistimed bridge explosion on the Elster River led to the death of Joseph Poniatowski. 5400 Saxons defected from the French army to join this battle’s victorious (*) coalition led by Alexander I and the Prince of Schwarzenberg. For 10 points, name this 1813 defeat of Napoleon by the Sixth Coalition, nicknamed the Battle of the Nations.**

ANSWER: Battle of Leipzig (accept “Battle of the Nations” before read) <BA>

20. A John Bertram book discusses this character's appearance on covers of the novel she features in despite the author's opposition. After a year travelling America during which this character cries every night, she begins attending a girls' school in Beardsley. The main body of the novel she appears in is published by John Ray, Jr. after this character dies. Viewed as the successor to the narrator's (*) childhood love Annabel Leigh, this daughter of Charlotte escapes him with the playwright of *The Enchanted Hunters*, Clare Quilty. For ten points, name this teenage character pursued by the pedophile Humbert Humbert in a novel by Vladimir Nabokov.

ANSWER: Dolores Haze [accept Lolita, prompt on Haze] <CM; American Literature>

PACKET 10 BONUSES

1. The most popular version of this collection of objects is named for Rider and Waite. For 10 points each:

[10] Name this set divided in the Major and Minor Arcana. It usually includes items named The High Priestess, The Hierophant, and The Hanged Man.

ANSWER: **tarot** card [or **tarot** deck]

[10] A set of tarot cards created by Frieda Harris with help from Aleister Crowley was called *The Book of* [this Egyptian god]. This ibis-headed god was associated with the moon and esoteric knowledge.

ANSWER: **Thoth**

[10] Thoth was syncretized with this Greek messenger god as a "thrice-great" deity. His Roman parallel was named Mercury.

ANSWER: **Hermes** Trismegistus <CS>

2. Alexander Borodin is famous for pieces such as *Prince Igor*, but he is also famous for being an organic chemist! For ten points each:

[10] One of Borodin's chemical accomplishments was discovering a reaction that produces these carbonyl derivatives. A condensation named for these compounds reacts an enol with a carbonyl compound to produce them.

ANSWER: **aldols** (accept **aldol reaction**)

[10] The main purpose of the aldol reaction is to form these types of bonds, which are central to organic chemistry. Single types of these bonds are seen in alkanes, whereas double types of these bonds are seen in alkenes.

ANSWER: **carbon-carbon** bonds (prompt on **covalent** bonds by asking "between what")

[10] Another discovery of Borodin was a reaction also named for Hunsdiecker that adds one of these elements to silver acetate. These elements have seven valence electrons, making them very reactive.

ANSWER: **halogens** <KK>

3. Name these Romans who held the office of dictator. For 10 points each,

[10] This early Roman honorably resigned after both of his dictatorships, one of which dealt with the rebellion of Spurius Maelius. Henry Knox named a society of Revolutionary War veterans for him, inspiring a city in Ohio.

ANSWER: Lucius Quinctius **Cincinnatus**

[10] This Roman feuded with Gaius Marius and revived the office of dictator. Although he, too, resigned from the dictatorship, this statesman's namesake Civil Wars permanently destabilized the Republic.

ANSWER: **Sulla**

[10] Unlike all previous dictators, this man was appointed dictator-for-life. This did not go well for him, as he was assassinated by conspirators such as Brutus and Cassius soon afterwards.

ANSWER: Julius **Caesar** <KK>

4. In a short story by this author, the protagonist drops a cabinet minister's raincoat when fleeing an angry swan, and requires rescue by a butler wielding a boathook. For ten points each:

[10] Name this English humorist, the creator of Jeeves and Wooster.

ANSWER: P.G. **Wodehouse**

[10] "Jeeves and the Impending Doom" takes place when Wooster visits Agatha, who is this kind of person. This kind of person, along with "the Scriptwriter," also titles a novel by a Peruvian author where alternate chapters are radio scripts.

ANSWER: **aunts** (accept descriptions of an aunt; accept **Aunt Agatha** or **Aunt Julia**)

[10] *Aunt Julia and the Scriptwriter* was written by this Nobel Prize-winning author of *The Feast of the Goat* and *The War of the End of the World*.

ANSWER: Mario **Vargas Llosa** <TDG>

5. One of these people, Harald Bluetooth, lends his name to a certain wireless tech company. For 10 points each, [10] Name these Scandinavian raiders that terrorized Northern Europe during the Middle Ages. These people did travel in longships but did not actually wear horned helmets.

ANSWER: **Vikings**

[10] This northwestern region of France named for the Vikings was colonized after Rollo besieged Paris. Rollo's descendant William led a much later invasion of England from this region in 1066.

ANSWER: **Normandy**

[10] This region of England colonized by the Vikings was formally defined by the Treaty of Alfred and Guthrum. It was ruled in tandem with Denmark by Sweyn Forkbeard and Cnut the Great.

ANSWER: **Danelaw** <KK>

6. This thinker's most important contributions can be found in the extensive notes to a translation of an article by Luigi Menabrea. For 10 points each:

[10] Name this person, often regarded as the first computer programmer, or at least the first to publish a computer program. This programmer worked with Charles Babbage on his never-completed Analytical Machine.

ANSWER: Ada **Lovelace** (nee **Byron**) [accept either underlined portion; accept the Countess of **Lovelace**]

[10] Lovelace is generally regarded as the first to recognize that computers could calculate more than just numbers, likely because she realized that both cards used for looms and the cards Babbage's engine recorded data by making this kind of modification to the card.

ANSWER: **punching** holes in them [or equivalents describing making **holes** in the cards]

[10] Lovelace's first published algorithm was designed to find Bernoulli numbers, which are very useful to solve this function. This function's namesake hypothesized that its non-trivial zeros have a real part of one half.

ANSWER: (Euler-)Riemann **zeta** function [do NOT accept any other zeta function] <CS>

7. Nancy Reich claims that this performer was, like Liszt, one of the first to perform from memory, which set performing from memory as the standard for pianists of the future. For 10 points each:

[10] Name this pianist, the first to publicly perform the work of Johannes Brahms. This pianist premiered a piano concerto whose first movement *allegro affettuoso* opens with a strike from the strings and timpani, which inspired Grieg's concerto in the same key of A minor.

ANSWER: Clara **Wieck** [accept, but do not reveal **Clara Schumann**; prompt on "Schumann" alone]

[10] Clara was the wife of this composer of that A minor piano concerto and the *Spring* and *Rhenish* symphonies.

ANSWER: Robert **Schumann**

[10] Schumann depicted his wife in the "Chiarina" movement of a work named for these celebrations. Another piece named after one of these festivals includes the movements "Aquarium," "Fossils," and "The Swan."

ANSWER: **Carnival** [accept *Carnaval*; accept *Carnival of the Animals*] <CS>

8. An ongoing dispute centers on whether one of these figures named Mallinath was a man or a woman. For 10 points each:

[10] Name this figures who deliver a samavasarana. Twenty-four of these figures have emerged in the current avasarpini, or descending time cycle.

ANSWER: **tirthankaras** [or **jinas**; prompt on "ford-maker"]

[10] This religion reveres tirthankaras such as Mahavira, who taught followers to take five vows including *ahimsa*, or non-violence.

ANSWER: **Jainism** [or **Jain** Dharma]

[10] This Jain sect does not believe Mallinath was a woman because it does not believe that women can achieve moksha, in part because this sect doesn't allow women to be naked in public.

ANSWER: **Digambara** Jains [or **sky-clad** Jains] <CS; Religion>

9. The government of this region was targeted in the Wilcox Rebellion. For ten points,
[10] Name this island chain annexed by President William McKinley in the Newlands Resolution. Monarchs of this region ruled from 'Iolani Palace in Honolulu.

ANSWER: **Hawai'i**

[10] This document disenfranchised many non-whites and allowed Americans to vote in Hawaii without being citizens. This document was named for the way that Lorrin Thurston forced it upon King Kalakaua.

ANSWER: **Bayonet Constitution** (prompt on "1877 Constitution")

[10] This final monarch of Hawai'i was deposed by John Stevens after she attempted to replace the Bayonet Constitution. After this monarch was deposed, Sanford B. Dole became the leader of a provisional government.

ANSWER: Queen **Liliuokalani** (be generous with pronunciation) <KK>

10. The third verse of "The Real Slim Shady" opens with the diss "[this rapper] ain't gotta cuss in his raps to sell records / Well I do, so [bleep] him and [bleep] you too." For 10 points each:

[10] Name this frequent collaborator with Jazzy Jeff who recorded "Getting Jiggy With It."

ANSWER: Will **Smith**

[10] This Will Smith single, which samples Patrice Rushen's "Forget Me Nots," won a 1998 Best Rap Single Grammy. It shares its name with a movie Smith starred in as Agent J across from Tommy Lee Jones' Agent K.

ANSWER: "**Men in Black**"

[10] This member of the Smith family voiced Kaz Kaan in *Neo Yokio*, but is better known for asserting "Most trees are blue" and asking "How can mirrors be real if our eyes aren't real?" He released the 2017 album *Syre*.

ANSWER: **Jaden** Smith <CS>

11. Prefixed with centi-, this scientist's name is given to an alternate name for the map unit for measuring genetic linkage. For 10 points each:

[10] Name this Columbia scientist who studied *Drosophila melanogaster* in his Fly Room.

ANSWER: Thomas Hunt **Morgan**

[10] A specimen called Bithorax was found in Morgan's laboratory in 1915. Bithorax fruit flies have a mutation in one of these genes which manage the body plan of an organism along its head-tail axis.

ANSWER: **Hox** genes [or **homeobox** genes; accept **homeodomain** genes]

[10] An important *Drosophila* gene is named for this body part with the suffix *-less*. In *Drosophila*, these compound structures are made of 760 ommatidia, each with eight photoreceptor cells.

ANSWER: **eyes** [accept **eyeless**] <CS>

12. The author of this set of works muses that "someday there will be girls and women whose name will no longer mean the mere opposite of the male, but something in itself." For 10 points each:

[10] Name this set of ten missives to German military school student Franz Xaver Kappus. The first of these letters advises Kappus not to ask others about the quality of his verses, but to "Go into yourself. Find out the reason that commands you to write."

ANSWER: **Letters to a Young Poet**

[10] This author of *Letters to a Young Poet* was inspired by Auguste Rodin to write his *New Poems*, which included many "thing poems." He asked "Have you remembered / Gaspara Stampa sufficiently yet" in his first *Duino Elegy*.

ANSWER: Rainer Maria **Rilke**

[10] Gaspara Stampa wrote hundreds of these poems about her unrequited love for Collaltino. Rilke dedicated fifty-five of these fourteen-line poems to Orpheus.

ANSWER: **sonnets** <CS; European Literature>

13. Guillermo Moreno forced the producers of this item to artificially lower its price, as *The Economist* used this product to prove that Argentina is falsifying its inflation rate For 10 points each:

[10] Name this product which *The Economist* has used since 1986 to create a namesake index that measures purchasing power parity and "make[s] exchange-rate theory a bit more digestible."

ANSWER: **Big Mac** [accept **Big Mac** Index]

[10] At this meeting, the US dollar was set as the reserve currency against which all other currencies would be fixed. The World Bank and the IMF were also created as a result of this meeting at Mount Washington Hotel in New Hampshire.

ANSWER: **Bretton Woods** conference [accept **United Nations Monetary and Financial Conference**; accept **Bretton Woods** system]

[10] Before the Bretton Woods conference, paper currencies were backed with this metal. Bimetallists wanted to back the dollar with both silver and this precious metal.

ANSWER: **gold** [or **Au**] <CS; Philosophy and Social Science>

14. This poet wrote that he grew "neither nettles nor thorns" but the title flower in his poem "I cultivate a white rose." For ten points each:

[10] Name this poet. One of his poems from *Versos Sencillos* became the unofficial national anthem "Guantanamera."

ANSWER: Jose **Marti**

[10] "Guantanamera" is the unofficial anthem of Cuba, and is thus written in this language. Sor Juana wrote poems in this language in Mexico City.

ANSWER: **Spanish**

[10] Figures ranging from Agamemnon to Madero asks "Why are they killing me?" in this other Spanish poem. It closes with the image of "a course of a river that turns, moves on, doubles back, and comes full circle, forever arriving."

ANSWER: "**Sunstone**" [or "**Piedra del Sol**"] (by Octavio Paz) <CM + CS; Ancient and World Literature>

15. Answer the following about the art career of Henry Fox Talbot, for 10 points each:

[10] Talbot was a photographer from this country, as was Julia Margaret Cameron, who photographed Tennyson-inspired scenes. Another photographer from this country, Iain Macmillan, created the cover of *Abbey Road*.

ANSWER: **United Kingdom** of Great **Britain** and Northern Ireland [accept either underlined portion; accept **UK**; accept **England** or **Scotland**, but not "Wales" or "Northern Ireland"]

[10] Talbot had a rivalry with this French photographer of *Paris Boulevard*. Adding "-otype" to his name gives a method for creating photographs using silvered plates made light-sensitive with fumes.

ANSWER: Louis-Jacques-Mande **Daguerre** [accept **daguerreotype** or **daguerrotype**]

[10] Talbot created an artwork in this form called *The Pencil of Nature*. The Limbourg brothers are most famous for works in this form, including one made for the Duc de Berry.

ANSWER: **book** [prompt on "(illuminated) manuscript"] <CS>

16. Everyone knows the earth is flat, so why is it so hard to decide on a suitable map projection? For 10 points each:
[10] This projection, created in 1569, uses straight longitude and latitude lines that make Greenland and Africa nearly the same size.

ANSWER: **Mercator** projection

[10] This man introduced an equal-area projection world map in 1974 that bears his name and James Gall's. His map correctly depicts the relative sizes of continents by stretching them lengthwise.

ANSWER: Arno **Peters**

[10] This city's public schools became the first to make the Gall-Peters projection standard in 2017. It was the site of 1970s protests over busing desegregation, especially in mostly Irish "Southie" and mostly black Roxbury.

ANSWER: **Boston**, Massachusetts <CC>

17. The originator of this idea later called it his "biggest blunder". For ten points each,

[10] Name this parameter that Albert Einstein added to his general relativity theory in order to suit a static universe. This constant is denoted by a capital lambda.

ANSWER: **cosmological constant**

[10] Einstein abandoned the cosmological constant after this American astronomer discovered that nearly all galaxies are moving away from each other. This astronomer lends his name to a certain space telescope.

ANSWER: Edwin **Hubble**

[10] The cosmological constant is a possible model for this entity, which makes up about 68% of the energy in the observable universe. This substance works against gravity to accelerate the expansion of the universe.

ANSWER: **dark energy** (do not accept or prompt on "dark matter")

18. 18th century artists liked to sculpt a member of this profession named Milo of Croton. For 10 points each:

[10] Name this general profession of the youths in *Apoxyomenos* sculptures such as the one made by Lysippos. That sculpture's name is sometimes translated as "The Scrapper."

ANSWER: **athlete** [or **wrestler**] (the *Apoxyomenos* is scraping the dirt and sweat off his skin)

[10] Lysippos, Skopas, and this Athenian were the three greatest Classical era sculptors. He possibly had a relationship with his model, Phryne, who was probably the subject of the first-ever life-size female nude sculpture. This sculptor also made *Hermes Bearing the Infant Dionysus*.

ANSWER: **Praxiteles** of Athens

[10] The British Museum houses this Myron sculpture of an athlete looking behind himself at the object in his hand at the end of his backswing.

ANSWER: **Discobolus** [or *The Discus Thrower*] <CS>

19. In this author's poem "Ego Tripping," the speaker declares "I am so perfect so divine so ethereal so surreal / I cannot be comprehended except by my permission." For 10 points each:

[10] Name this Virginia Tech poet, who wrote about her love of summer in "Knoxville, Tennessee." She lamented "childhood reminiscences are always a drag / if you're Black" in "Nikki-Rosa."

ANSWER: Yolande Cornelia "Nikki" **Giovanni**, Jr.

[10] Nikki Giovanni edited *Shimmy Shimmy Shimmy Like My Sister Kate*, which is a collection of works from authors of this African-American movement. This movement included Langston Hughes.

ANSWER: **Harlem Renaissance**

[10] This other African-American author wrote about "Two who are Mostly Good" for whom "Dinner is a casual affair" in "The Bean Eaters." She parodied the *Aeneid* in the "Anniad" section of her *Annie Allen* and also wrote *We Real Cool*.

ANSWER: Gwendolyn Elizabeth **Brooks** <CS + CM; American Literature>

20. These people are often depicted riding giant war elephants into battle. For 10 points each,

[10] Name these sisters that temporarily liberated the kingdom of Nanyue from Chinese rule. They liberated much of the Red River Delta before their revolt was crushed by Ma Yuan.

ANSWER: **Trung** Sisters (accept **Trung** Trac and **Trung** Nhi)

[10] The Trung Sisters rebelled against this dynasty of China, which also faced the rebellion of Wang Mang. This dynasty names the majority Chinese ethnic group and brought the Silk Road into China proper.

ANSWER: **Han** Dynasty

[10] The Trung Sisters lived in what is now this country, which was later ruled by both the Nguyen (u-en) Dynasty and French Indochina.

ANSWER: **Vietnam** <KK>