

Bulldog High School Academic Tournament 2018 (XXVII): After such knowledge, what forgiveness?

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Packet 2 Tossups

1. **This mathematician extended the much earlier result that all numbers of a particular form are perfect by showing that all even perfect numbers take that form. He was the first to prove that the infinite sum of “1 over n -squared” equals “pi-squared over six.” The simplest Runge–Kutta method is the first-order method of solving differential equations named for this man. The constant given by the (*) harmonic series minus the natural logarithm at the limit is named for this man and Mascheroni. This mathematician names the identity “ e to the i -pi equals negative 1.”** For 10 points, name this 18th century Swiss mathematician, who named the base of the natural logarithm e .

ANSWER: Leonhard Euler <AF>

2. **A book titled for this concept argues that inequality arises when income deriving from this concept outstrips long-term economic growth. One component of the Mundell–Fleming model’s “impossible trinity” is the free movement of this concept. A surprise best-seller of 2013 was Thomas Piketty’s book on this concept *In the Twenty-First Century*. Gary Becker helped popularize a type of this concept that includes social (*) skills and technical knowledge—that’s this concept’s “human” type. This concept, land, and labor are the main factors of production. For 10 points, name this term for assets like money that can be invested to produce more assets.**

ANSWER: capital [accept human capital; prompt on assets until mentioned] <AF>

3. **In a poem by this author, the speaker says that “the flame ... is not extinguished,” and tells the addressee, “I loved you; and perhaps I love you still.” He wrote a novel in which a girl looks through the books in the protagonist’s library and reads the notes he has left in the margins. One of his characters gives a “Sermon” dismissing a girl who wrote him a (*) love letter. More commentary than text was included in an infamously literal 2-volume translation of this man’s most famous poem by Vladimir Nabokov. After rejecting Tatyana at her name-day party, the title character kills Lensky in a duel in—for 10 points—what Russian author’s verse novel *Eugene Onegin*?**

ANSWER: Alexander (Sergeyevich) Pushkin <JW/CK>

4. **An admiral with this last name endorsed his primary opponent William McKinley after claiming that “our next war will be with Germany” and admitting that he’d never voted. A Governor of New York with this surname took down mob boss Lucky Luciano. A man with this last name became the only Admiral of the Navy after saying “you may fire when...ready, Gridley” at the Battle of (*) Manila Bay. A Republican with this surname lost to a critic of the “Do-Nothing Congress” and was expected to win after Strom Thurmond’s Dixiecrats split the vote in 1948. The *Chicago Tribune* printed a headline wrongly claiming that—for 10 points—what man “Defeats Truman”?**

ANSWER: Dewey [accept Thomas E. Dewey or George Dewey accept “Dewey Defeats Truman”] <AF>

5. Act 1 of a 2011 sequel to this play depicts a couple selling their house in 1959 after their son Kenneth commits suicide. A man in this play yells “I live the answer!” while arguing with a woman for depending on her father’s death. Bruce Norris wrote a sequel to this play, in which a woman is scolded for straightening her hair and yells “Ocomogosiay!” while dancing. Joseph (*) Asagai courts Beneatha in this play. Karl Lindner tries to buy its protagonist out of his liquor store after he gets an insurance check and tries to move to Chicago’s Clybourne Park. The Youngers try to move to a white neighborhood in—for 10 points—what play by Lorraine Hansberry?

ANSWER: A Raisin in the Sun <MK>

6. This man painted one of his lovers as a “veiled woman” and, in another painting, depicted her holding her bare breast as a “baker.” The sitter of one of his portraits holds a magnifying glass, with an open book and silver bell lying on his red-clothed table; that subject wears a red velvet cap and mantle and sits between (*) two men in red robes. In another of this man’s paintings, one central man holds a book and thrusts his hand out, while the other points upward. He painted portraits of Baldassare Castiglione [“ball”-dah-SAH-ray cah-“still”-YOH-nay] and Leo X [the 10th] with two cardinals. In an arch-shaped wall of the Stanza della Segnatura [say-nyah-TOO-rah], he painted Plato and Aristotle arguing. For 10 points, name this painter of *The School of Athens*.

ANSWER: Raphael [or Raffaello Sanzio di Urbino] <JR>

7. During this period, the eruption of a Peruvian volcano may have caused a famine that killed two million people, or one-third of the population. A leader during this period publicly converted to Catholicism to win the support of the Jesuits and the papal nuncio Claudio Rangoni. This period included a massive defeat to the Winged Hussars at the Battle of (*) Klushino. It began with the accession of Boris Godunov, who had previously been regent for the mentally-handicapped Feodor Ivanovich. Three “False Dmitrys” claimed the throne during—for 10 points—what period of turmoil between the extinction of the Rurikids and the crowning of Michael Romanov?

ANSWER: Time of Troubles [or Smutnoe vremya] <SPQR>

8. The presence of this species and an alkali metal in an ammonia solution causes a deep blue color. The number of moles of this species involved in a reaction is labeled n or z in the denominator of the fraction in the Nernst equation. One mole of this species is used to define the (*) Faraday constant. Canceling these species is the last step of balancing a pair of half reactions. A net flow of these species is compensated by the movement of anions through a salt bridge. These species leave a galvanic cell at the anode and return at the cathode. Reduction is a gain, and oxidation is a loss, of—for 10 points—what negatively charged components of atoms?

ANSWER: electrons <SE>

9. Nickerson Field and Alumni Field served as temporary homes for this team, which was the eighth and final franchise of the AFL. This team was owned by James Orthwein until 1994. A player for this team claimed that the other team “made one good play” all game despite scoring (*) 41 points. This team holds the record for most yards in a playoff game, despite losing that game. Players for this team owned by Robert Kraft include Dont’a Hightower and Julian Edelman. This team triggered both the “Spygate” and “Deflategate” controversies in recent years. For 10 points, name this football team coached by Bill Belichick who lost to the Philadelphia Eagles in the 2018 Super Bowl.

ANSWER: New England Patriots [accept either] <SPQR>

10. Before saying a prayer about this thing, it's traditional to cover or remove *challah* from the table. The *Havdalah* candle is traditionally extinguished using this substance. A small amount of this substance is usually administered right before a *bris*. This substance is blessed by saying "*Borei Pri HaGafen*." Shabbat is celebrated using two candles, two loaves of *challah*, and this substance. This is the flagship product of (*) Manischewitz ["man"-ih-SHEH-vitz]. The *kiddush* is said over this substance, which is dropped onto one's plate to represent the 10 plagues. The Passover seder is organized around four cups of—for 10 points—what alcoholic drink?

ANSWER: wine [accept grape juice] <JR>

11. A poem by this author exhorts "up, lad, up, 'tis late for lying" and concludes "when the journey's over there'll be time enough for sleep." Another of his poems describes "the old wind in the old anger" that once "threshed another wood." This author of "Reveille" wrote that "early though the (*) laurel grows / it withers quicker than the rose." This Latin scholar wrote "On Wenlock Edge" and a poem for a boy who was "chaired...through the market-place." The speaker was told "give crowns and pounds and guineas, but not your heart away" in his poem "When I Was One-and-Twenty." For 10 points, name this man who included "To An Athlete Dying Young" in *A Shropshire Lad*.

ANSWER: A.E. Housman [or Alfred Edward Housman] <SPQR>

12. These people founded an "Antarctic" colony in Brazil and Fort Caroline in what is now Jacksonville. Many Waldensians likely joined this group after the Massacre of Merindol. These people posted an incendiary poster on the king's bedroom door in the Affair of the Placards, and some of them conspired to kidnap the son of (*) Henry II. Persecution of these people resumed after a 1685 decree from Fontainebleau. Charles IX's mother Catherine de Medici ordered a massacre of them on St. Bartholomew's Day, 1572. Henry IV stopped being one of these people, saying "Paris is worth a Mass." The Edict of Nantes granted toleration to—for 10 points—what French Protestants?

ANSWER: Huguenots [prompt on French people until mentioned; prompt on Protestants or Calvinists until mentioned] <MK>

13. *Description acceptable.* Inside a dielectric sphere in a uniform electric field, the polarization depends on this function of angular position. In an ideal LC circuit, the sum of the energy stored in the inductor and the capacitor changes with this function of time. Near an infinite uniform plane of charge, the electric field varies with the distance from the plane in (*) this way. While the kinetic and potential energies of an undamped harmonic oscillator vary sinusoidally, the total energy depends on time in this way. The voltage delivered by a DC power source varies with time in this way. For 10 points, how does the total amount of a conserved quantity change in time?

ANSWER: constant [or fixed; accept answers indicating that the quantity does not change] <SE>

14. In a novel from this country, a painter cruelly insists on depicting his sister's hunchback, and has a *Lolita*-esque affair with the child prodigy Kathy Volkov. In another novel, Edmund Bonner sponsors Dugald, Jackie, Palfreyman, Le Mesurier, and others to explore this country. The author of *The Vivisector* wrote about Laura Trevelyan's journey across this country with the title explorer in (*) *Voss*. An author from this country wrote the original novel of *Schindler's List*. *The True History of the Kelly Gang* fictionalizes this country's bushrangers. Patrick White, Thomas Keneally, and Peter Carey are from—for 10 points—what country where Banjo Paterson wrote "Waltzing Matilda"?

ANSWER: Commonwealth of Australia <MK>

15. A Hindu goddess who consumes *this* substance goes on a rampage until she accidentally steps on her husband and bites her tongue in remorse. In the Puranas, Rakta-bija uses this substance to regenerate himself until he is killed by Kali. This substance is mixed with ground-up bones to create the fifth age of (*) humans of Aztec mythology. In the Saga of the Volsungs, consuming this substance enables Sigurd to understand the language of birds. An analog of this substance called ichor [ˈɪkər] is present in the bodies of Greek deities. For 10 points, name this substance that's consumed by vampires.

ANSWER: **blood** [accept **dragon's blood**] <SPQR>

16. One of these pieces comes between the Prélude and the Forlane in Ravel's *Le tombeau de Couperin*. This is the title given to the tenth *Goldberg Variation*. One of these pieces that cycles all the way around the circle of fifths opens Bartók's *Music for Strings, Percussion, and Celesta*. Beethoven wrote a difficult one marked "Allegro risoluto" to conclude his (*) "Hammerklavier" sonata, and he originally ended his thirteenth string quartet with a *Grosse* one. In a D-minor organ piece by Johann Sebastian Bach, this kind of piece follows a toccata. Bach wrote a collection called *The Art of*—for 10 points—what contrapuntal form paired with preludes in *The Well-Tempered Clavier*?

ANSWER: **fugues** [accept **fugato** or **fughetta**; accept *Grosse Fuge* or *The Art of Fugue* or *Die Kunst der Fuge*] <JW>

17. In 1903, this country traded a railway for the region of Acre. This country's national motto was inspired by the Positivist thought of Auguste Comte. In the 1930s, Plínio Salgado founded a fascist party known as the Integralists in this country. Slaves in this country created the religion Candomblé. This country was led by the Duke of (*) Caxias during the War of the Triple Alliance, when it allied with Argentina and Uruguay. Gétúlio Vargas established an *Estado Novo* dictatorship in this country, where Emperor Pedro II had signed the Golden Law to abolish slavery. For 10 points, name this South American country that, in 1960, built a namesake capital city.

ANSWER: Federative Republic of **Brazil** [or República Federativa do **Brasil**; or Empire of **Brazil**; or Império do **Brasil**] <MK>

18. A Beaux-Arts-style art museum in this city's Midtown is home to Henry Fuseli's *The Nightmare*. This city's International Waterfront is home to a 73-story hotel in its Renaissance Center, as well as this city's Cobo Center. This city lies north of the Rouge River and it's home to Belle Isle Park. Berry Gordy founded a company in this city in a building nicknamed (*) "Hitsville U.S.A." This city is separated from its wealthy suburbs by 8 Mile Road. This city in Wayne County is where Motown Records was founded. It lies across from Windsor, Ontario on a namesake river that empties into Lake Erie. G.M. and Ford are headquartered in—for 10 points—what Michigan city?

ANSWER: **Detroit** <JR>

19. This medium was used to cover the most prestigious *iwans* and *muqarnas* of Bukhara and Isfahan. The central part of artworks in this medium was sometimes called an *emblema*. This medium was often used for a *Christ Pantocrator* image in the apse. One of these artworks was found at the House of the Faun in Pompeii and depicts (*) Alexander the Great. These artworks cover the Great Mosque of Damascus, and they decorate the inside of Venice's St Mark's Basilica and the Hagia Sophia. Their components are called tesserae, and they originated from early assemblies of pebbles on the floor. For 10 points, name these artworks made from bits of colored stone or glass.

ANSWER: **mosaics** [accept **tilework**] <JR>

20. *Description acceptable.* A diagnostic for this kind of disorder contains “registration” and “orientation” categories and typically uses the “serial sevens” test. This disorder is screened for by the Folstein test, also known as the MMSE. The protein isoform (*) ApoE4 is a major risk factor for one form of this disorder. Tasks used in diagnostics for this disorder include drawing a clock at a given time and naming common objects. Symptoms of one type of this disorder include tau protein tangles and amyloid-beta plaques; that most common disorder of this type is Alzheimer’s disease. For 10 points, name this disorder characterized by a decline in cognitive function.

ANSWER: **dementia** [accept **Alzheimer**’s disease until it’s mentioned] <AF>

Tiebreaker

21. This poem’s preface “The Verse” attacks the “jingling sound of like endings” to justify its lack of rhyme. Halfway through this poem, its speaker invokes the “meaning,” but “not the Name” of Urania. This poem’s opening declares itself an “adventurous Song, / That with no middle flight intends to soar,” in an invocation to a spirit that “from the (*) first / was present.” At the end of this poem, its protagonists take “their solitary way” “hand in hand with wandering steps and slow.” This poem aims “to justify the ways of God to man.” “Man’s First Disobedience, and the Fruit / of that Forbidden Tree” are depicted in—for 10 points—what epic poem by John Milton?

ANSWER: ***Paradise Lost*** <JR>

Bonuses

1. Organisms with this feature are mostly classified as deuterostomes or protostomes. For 10 points each:

[10] Name this feature of most animal phyla, which have a front, back, top, and bottom, but otherwise have two of most body parts.

ANSWER: **bilateral** symmetry [or **plane** symmetry; prompt on **symmetry**]

[10] Animals without bilateral symmetry include sponges and *this* phylum of corals and jellyfish.

ANSWER: **Cnidaria** [or **cnidarians**]

[10] Unlike animals with bilateral symmetry, cnidarians and sponges have *this* number of germ layers.

ANSWER: **two** [accept **diploblast**] <JR>

2. This director has made several of his films with actors Tony Leung and Maggie Cheung and cinematographer Christopher Doyle. For 10 points each:

[10] Name this contemporary Chinese director, who depicted the spouses of an adulterous couple themselves falling in love in his film *In the Mood for Love*.

ANSWER: **Wong** Kar-wai

[10] Wong Kar-wai works in this place's film industry. This place is where Bruce Lee and Jackie Chan did their Chinese-language work.

ANSWER: **Hong Kong** [or **Xiang Gang**; prompt on **China**]

[10] Chan and Lee are best known for integrating these highly systematized combat styles into their acting.

ANSWER: **martial** arts [accept **kung fu** or **wushu**; do **not** accept or prompt on "karate"] <JR>

3. For 10 points each—answer the following about border disputes in Europe:

[10] Spain and the U.K. have long disputed *this* territory, which controls the strait between the Atlantic Ocean and the Mediterranean.

ANSWER: **Gibraltar** [accept Straits of **Gibraltar**]

[10] This zone consists of 26 European states that have abolished passport control at their mutual borders. Some E.U. member states have recently imposed restrictions on borders in this zone due to the migration crisis.

ANSWER: **Schengen** Area

[10] Russia and Ukraine have engaged in a long-term border dispute over this body of water. This sea is served by the Don and Kuban rivers, and it's separated from the rest of the Black Sea by the Crimean Peninsula.

ANSWER: Sea of **Azov** <SPQR>

4. This country's war of independence was the work of "Black Jacobins" according to historian C.L.R. James. For 10 points each:

[10] Name this Caribbean island nation that gained independence under Toussaint Louverture, in the only Western slave revolt to successfully establish a new country.

ANSWER: Republic of **Haiti** [or République de **Haïti**]

[10] A number of the leaders in the Haitian Revolution were half-blacks described by *this* term. In Spanish colonies, these people were contrasted with *zambos*, *criollos*, and *mestizos*.

ANSWER: **mulattoes**

[10] The slaves and free blacks of colonial Haiti had been "governed" under the French *Code Noir*, which was first drafted by this finance minister of the later 17th century.

ANSWER: Jean-Baptiste **Colbert** <JR>

5. In 1936, this man withdrew his Fourth Symphony, which includes a climactic brass cluster marked with five *F*s. For 10 points each:

[10] Name this composer of *Lady Macbeth of the Mtsensk District*. After being blasted in *Pravda* for that opera, he resuscitated his official reputation with his Fifth Symphony.

ANSWER: Dmitri (Dmitriyevich) **Shostakovich**

[10] Shostakovich wrote this number of symphonies and string quartets. He had planned to write a string quartet in each major and minor key but ended up falling short by several quartets.

ANSWER: **15**

[10] Shostakovich, like many composers, played this keyboard instrument, in which hammers strike the strings.

ANSWER: **pianoforte** <JW>

6. This god and his twin brother Quetzal-coatl were thought to be the dark and light aspects of the planet Venus, respectively. For 10 points each:

[10] Name this dog-headed Aztec god of lightning who accompanies the dead to the underworld Mictlan.

ANSWER: **Xolotl** ["SHOW"-loht]

[10] In the mythology of these people, Shu and Tefnut, the primordial gods of air, are twin siblings and lovers; their children, Geb and Nut, the primordial gods of the earth, are twin siblings and lovers.

ANSWER: ancient **Egypt** [or *Misr alqadima*; or obvious equivalents]

[10] The Ashvins are a pair of twin horsemen who appear in this Hindu epic that contains the *Bhagavad Gita*.

ANSWER: The ***Maha-bharata*** [or the ***Maha-bharatam***]

7. Abraham Lincoln, the dedicatee of "O Captain, My Captain!" was also eulogized in this poem by the same man. For 10 points each:

[10] Name that poem that tells of a "solitary thrush" and begins by describing how "the great star early droop'd in the western sky."

ANSWER: "***When Lilacs Last in the Dooryard Bloom'd***"

[10] Both of those poems are featured alongside "Song of Myself" in *Leaves of Grass*, a collection by this American poet.

ANSWER: Walt(er) **Whitman**

[10] The speaker of this man's poem "To Roosevelt" states that it's with the "verse of Walt Whitman" that people should reach the title figure. This poet started a Symbolist movement called *modernismo*.

ANSWER: Rubén **Darío** [or Félix Rubén **García** Sarmiento] <MK>

8. For 10 points each—answer the following about how water droplets in the air split light to form rainbows:

[10] Rainbows form when white light is split based on this property. Within the visible spectrum, this property is longest for red light and shortest for violet light.

ANSWER: **wavelength**

[10] That splitting is an example of this phenomenon, in which a material's refractive index varies as a function of frequency or wavelength.

ANSWER: **dispersion**

[10] Light passing through spherical water droplets is formally described using a type of this process named for Gustav Mie. This general process describes the redirection of moving particles due to interactions with other objects.

ANSWER: **scattering** [accept Mie **scattering**] <SE>

9. The last holder of this title was executed after the October Revolution. For 10 points each:

[10] Name this title that Peter the Great supplemented with the term "Emperor." It derives from a Russianization of the Latin "Caesar."

ANSWER: **Tsars** [or **Czars**]

[10] This organization was founded directly after the October Revolution. This body largely took over the power of the Central Committee, and was responsible for creating policy, unlike the Secretariat.

ANSWER: **Politburo**

[10] After the Revolution, Russia was quick to pull out of World War I, signing *this* peace treaty with the Central Powers to guarantee their exit.

ANSWER: Treaty of **Brest–Litovsk** <JW>

10. This novel coined the name “Great Game” for the Anglo–Russian geopolitical conflict in Central Asia. For 10 points each:

[10] Name this Rudyard Kipling novel set during the Anglo–Afghan Wars. Lurgan teaches its title orphan the Jewel Game.

ANSWER: ***Kim***

[10] Kim’s parents are from this modern country. A poet from this country wrote “A line will take us hours maybe; / Yet if it does not seem a moment’s thought, / Our stitching and unstitching has been naught” in “Adam’s Curse.”

ANSWER: Republic of **Ireland** [or Poblacht na hÉireann] (The poet is W.B. Yeats.)

[10] Kim helps a member of this religion finally discover the *River of the Arrow* and subsequently achieve Enlightenment. The title character of Herman Hesse’s *Siddhartha* converts to this faith.

ANSWER: **Buddhism** [accept word forms] <MK>

11. For 10 points each—answer the following about animal sacrifice in world religions:

[10] In Islam, animal sacrifice must follow these laws that also forbid Muslims from eating pork and drinking alcohol.

ANSWER: **halal**

[10] In Hinduism, animal sacrifices are very rare. Instead, offerings of food are made to Agni, the Vedic god of *this* phenomenon, which is worshipped in namesake temples by Zoroastrians.

ANSWER: **fire** [accept **fire temples**]

[10] Bull sacrifices were central to the late Roman “Mysteries” centering on *this* Persian god.

ANSWER: **Mithras** [accept **Mithraic** Mysteries] <JW>

12. Two of these mammals demonstrate that a building is actually a hospital by showing off tags for anemia and a nasal parasite. For 10 points each:

[10] Name this species of Rudder and Fluke, who repeatedly drive a unbrowed one named Gerald off a rock in a 2016 Pixar film.

ANSWER: **sea lions** [prompt on seals; do **not** accept or prompt on “manatees” or “walruses”]

[10] Those sea lions appear in a sequel titled for *this* blue fish, who has short-term memory loss and is voiced by Ellen DeGeneres.

ANSWER: **Dory** [accept ***Finding Dory***]

[10] The sea lion Fluke was voiced by this black English actor, who played Stringer Bell on *The Wire*, the title character on the show *Luther*, and Nelson Mandela in *Long Walk to Freedom*.

ANSWER: Idris **Elba** [or Idrissa Akuna **Elba**] <JR>

13. Applying this change drives the equilibrium of the Haber–Bosch process to the left. For 10 points each:

[10] Identify this type of change in experimental conditions, which makes entropy-*increasing* reactions more favorable.

ANSWER: **increasing** the **temperature** [accept any answer indicating that the **temperature goes up**; prompt on answers mentioning a change in temperature]

[10] The aforementioned change can be understood by noting that this quantity, equal to “enthalpy minus temperature times entropy,” becomes more negative if the entropy change is positive and temperature goes up.

ANSWER: **Gibbs free energy** [prompt on partial answer; prompt on delta-G; do **not** accept or prompt on “Helmholtz free energy”]

[10] More qualitatively, that change is an application of *this* principle named for a Frenchman, by which chemical equilibrium shifts to counteract a change in experimental conditions.

ANSWER: Le **Châtelier**'s principle <SE>

14. One section of this work, the *Digest*, includes massive excerpts from Gaius and Ulpian. For 10 points each:

[10] Name this text that also includes the *Pandects*. It's the largest surviving single body of Latin text.

ANSWER: **Justinian's Code** [or the **Corpus Juris Civilis**; or the **Corpus Iuris Civilis**; or the **Body of Civil Law**; accept **Codex Justinianus**, which is a specific part but very commonly used to refer to the whole thing]

[10] Justinian funded several wars in attempts to recover the lost Western half of the empire. He undertook his first against this tribe, who ruled Africa in the Roman tradition from 435 onward.

ANSWER: **Vandals**

[10] Justinian ruled from this capital of the Eastern Roman, or Byzantine Empire, which was built by a namesake Emperor. Its architecture was described in Procopius's *Buildings*.

ANSWER: **Constantinople** <SPQR>

15. After the deaths of this man and his brother Theo, this man's sister-in-law Johanna, whom he barely knew, was left to keep hundreds of paintings and edit hundreds of letters. For 10 points each:

[10] Name this Dutch-French painter of *Bedroom in Arles*, *Portrait of Dr. Gachet*, and *Starry Night Over the Rhone*.

ANSWER: Vincent **van Gogh**

[10] *Portrait of Dr. Gachet* was painted in 1890, the same year in which Georges Seurat began this dynamic final painting, in which a girl in yellow leaps from a white horse.

ANSWER: *The Circus* [or *Le cirque*]

[10] All of the paintings mentioned so far in this bonus can be found at this Paris art museum, known for its massive holdings of 19th-century French art. This museum's enormous size comes from its previous life as a train station.

ANSWER: Musée d'**Orsay** <JW>

16. In a play, a victim of this crime recalls how the perpetrator made her kneel with him to pray for forgiveness. For 10 points each:

[10] Name this crime that loses Reverend Shannon his tour guide job in *The Night of the Iguana*. In another play by the same man, Blanche is fired from her teaching job for this crime, not "nerves" as she claims. A description is fine.

ANSWER: **statutory rape** [prompt on partial answer; accept descriptions; accept answers that indicate **having sex with a student**]

[10] That happens in *A Streetcar Named Desire*, a play by this American author of *Cat on a Hot Tin Roof*.

ANSWER: Tennessee **Williams** [or Thomas Lanier **Williams** III]

[10] In *A Streetcar Named Desire*, Blanche's boyfriend Mitch states that this game "shouldn't be played in a house with women." Sessions of this game are hosted by Stanley at his home.

ANSWER: **poker** [prompt on cards or gambling] <MK>

17. In this event, the *Maddox* and *Turner Joy* were attacked by enemy torpedo boats. For 10 points each:

[10] Name this 1964 "incident" that prompted the U.S. to ramp up its involvement in the Vietnam War.

ANSWER: **Gulf of Tonkin** incident

[10] This American president swiftly passed the Gulf of Tonkin Resolution in response to that incident. This Texan Democrat succeeded JFK after his assassination.

ANSWER: Lyndon Baines **Johnson** [prompt on just Johnson; accept **LBJ**]

[10] This Secretary of Defense spearheaded the escalation of the Vietnam War. He refocused the World Bank on reducing poverty in developing countries during his time as its president.

ANSWER: Robert (Strange) **McNamara** <MK>

18. A poet claimed that this woman was called by her name “even by those who did not know what her name was.” For 10 points each:

[10] Name this subject of *La Vita Nuova*. In a later poem, she guides the protagonist through nine celestial spheres to the Divine “Love which moves the sun and the other stars.”

ANSWER: **Beatrice** (di Folco) Portinari

[10] Beatrice was the beloved of this Italian poet who included *Inferno* in his *Divine Comedy*.

ANSWER: **Dante** Alighieri [or Durante degli Alighieri]

[10] Dante’s *Inferno* claims that this then-living pope was destined for the Eighth Circle of Hell. This author of the bull *Unam Sanctam* was attacked in Dante’s *De Monarchia* and killed 6,000 people in Palestrina in 1298.

ANSWER: **Boniface** VIII [or Benedetto **Caetani**] <SPQR>

19. This philosopher posited four “causes,” two of which—matter and form—are the basis for his doctrine of “hylomorphism.” For 10 points each:

[10] Name this Greek philosopher who studied with Plato.

ANSWER: **Aristotle** [or **Aristoteles** of Stagira]

[10] Aristotle uses *this* word to refer to his concept of a “final” cause.

ANSWER: **telos** [accept **teleology**]

[10] Aristotle’s major theoretical discussion of the four causes appears in *this* text. This book gives its name to a field usually divided into epistemology and ontology.

ANSWER: **Metaphysics** <JW>

20. For 10 points each—answer the following about spheres in astrophysics:

[10] Young OB-type stars can be surrounded by Strömgren spheres, which are composed of ions of this most common element in the universe. Nuclei of this element fuse to form helium in the proton-proton chain.

ANSWER: **hydrogen** [or **H**]

[10] Another common type of sphere are the spheres named for this particle, which have radii equal to 1.5 times the Schwarzschild radius. These particles formed the CMBR after the time of last scattering.

ANSWER: **photons** [accept **photon** sphere]

[10] Photon spheres occur to the gravitational fields produced by these typically spherical objects, which are contained within the Schwarzschild radius.

ANSWER: **black holes** <AF>

Tiebreaker

21. For 10 points each—answer the following about Andrew Marvell’s “To His Coy Mistress.”

[10] The poem uses this meter, which uses lines a bit shorter than those Shakespeare used for his blank verse.

ANSWER: **iambic tetrameter** [prompt on partial answer]

[10] The poem is one of the many “metaphysical” poems written during this century, which is when John Dryden and John Donne lived. Shakespeare wrote most of his plays and died in this century.

ANSWER: **17th** century [or **1600s**]

[10] Near the end of the poem, Marvell exhorts his Mistress to do *this* action with “all our strength and all / our sweetness,” which will allow them to “tear our pleasures with rough strife / Through the iron gates of life.”

ANSWER: **roll** [them] **up into one ball** [accept any answer that clearly indicates **rolling** something into a **ball**; prompt on partial answers] <JR>