

National All-Star Academic Tournament Round 13

Tossups

1. One daughter of this woman eloped with the King of Dulichium while married to the King of Arcadia. This woman's husband helped Odysseus court his niece Penelope. The role that this mother of Phoebe, Philonoe, and Timandra played is sometimes also filled by Nemesis, and involves her lover coming to her arms to seek protection from an eagle. This woman slept with her husband Tyndareus, resulting in two eggs containing Clytemnestra, Helen, Castor, and Pollux. For 10 points, name this queen of Sparta who bore those children after Zeus impregnated her in the form of a swan.

ANSWER: Leda

064-09-12-13102

2. After seeing young boys throwing rocks at Ilyusha, this character gives money to Ilyusha's father Snegiryov, only for Snegiryov to throw the money in his face. At the end of the novel this character appears in, that group of young boys, led by Kolya Krassotkin, cheers this character's name. Although Rakitin attempts to corrupt this character by arranging for him to meet Grushenka, this character kisses the earth and resolves to leave his monastery after the death of his mentor Father Zosima. In the fifth book of the novel he appears in, this character listens to the fable of the Grand Inquisitor told by his intellectual, rationalist older brother. For 10 points, name this spiritual youngest brother of Smerdyakov, Dimitri, and Ivan in Dostoyevsky's *The Brothers Karamazov*.

ANSWER: <u>Alyosha</u> Karamazov [or <u>Alexei</u> Karamazov; or <u>A</u>lyosha <u>Karamazov</u>; or <u>A</u>lexei <u>Karamazov</u>; prompt on <u>Karamazov</u>]

004-09-12-13103

3. One of these objects has a Turkish name meaning "grey falcon" and can be found in the Fatih quarter of Istanbul. Another of these objects contains a statue of St. Stephen and formerly contained a statue of Hercules, who is said to be the founder of the city where it is located. Besides the Valens and Segovia examples, another of these objects was designed by William Mulholland and was accused of "raping" the Owens Valley. That structure runs from the Eastern Sierra Nevadas to Los Angeles. In ancient times, these structures were described in the writings of Frontinus and in Book Eight of Vitruvius' *De Architectura*. For 10 points, name these structures used in ancient Rome which serve as conduits to transport water.

ANSWER: Aqueducts

052-09-12-13104

4. In the third act of this opera, characters watch a ballet in which people dressed as Spanish gypsies sing about a matador named Piquillo. The male lead in this opera confesses his love for the female lead in the duet "Un di felice eterea," although he later humiliates her by throwing his gambling winnings at her feet. The first act of this opera ends with the title character singing "Sempre libera," and is set at a party whose guests sing "Libiamo, libiamo, ne' lieti calici," this opera's brindisi, or drinking song. Germont convinces this opera's title character to return to Paris and abandon her lover Alfredo, causing her to die of tuberculosis. For 10 points, name this Verdi opera about Violetta, the title courtesan.

ANSWER: La Traviata

5. Following the withdrawal of United States troops in 1926, this country was plunged into the Constitutionalist War. This country was once led by Adolfo Díaz who angered the United States by negotiating with Germany and Japan over the proposed canal which was the subject of a treaty between William Jennings Bryan and its Chamorro family. In 1856, William Walker appointed himself president of this country. It was ruled for four decades by the Somoza family, until a 1979 rebellion replaced them by a junta led by Daniel Ortega. For 10 points, name this Central American country which is home to the Sandinistas.

ANSWER: Republic of Nicaragua

024-09-12-13106

6. Enthalpy, entropy, heat capacity, and the coefficient of this quantity are the subjects of the four Lee-Kesler tables. An analogue of Raoult's law that instead invokes this quantity is named for this quantity's originator and Merle Randall. One definition of activity gives it as the ratio of this quantity in the actual to steady state. The chemical potential may be given as Boltzmann's constant times temperature times the natural log of this quantity. This quantity's dimensionless coefficient is the ratio of it to pressure and measures a gas's degree of non-ideality. Introduced by Gilbert Lewis, for 10 points, name this measure of adjusted pressure that gives a substance's tendency to escape a given phase.

ANSWER: fugacity

022-09-12-13107

7. One character in this play determines which of his nephews to leave his fortune to by alternately posing as the broker Mr. Premium and the poor relation Mr. Stanley. In the fourth act of this play, one character's hypocrisy is exposed when a screen in his house is drawn up, revealing the wife of Sir Peter. Mrs. Candour encourages this play's main vice, which is personified by Snake, who encourages Maria to marry the seemingly moral Joseph by spreading lies about Charles Surface. At the end of this play, Lady Teazle resolves to stop spreading ill-natured gossip and leaves the circle of Lady Sneerwell. For 10 points, name this Richard Brinsley Sheridan play about a group of rumormongerers.

ANSWER: The School for Scandal

004-09-12-13108

8. Ernst Kummer used ideals to prove that this theorem is true for all numbers divisible by regular primes. Sophie Germain divided this theorem into two cases and proved that its first case is true for all primes p such that p plus two is also prime. Because at least one non-modular Frey curve would exist if this theorem were false, this theorem can be proven by demonstrating that all elliptic curves are modular forms. Euler used the method of infinite descent to prove this theorem for the case n equals three, where n is the exponent of the Diophantine equation central to this theorem. For 10 points, name this theorem, that states that, if n is an integer greater than two, there are no distinct positive integers x, y, and z such that x to the n plus y to the n equals z to the n; a theorem eventually proven by Andrew Wiles.

ANSWER: **Fermat's last** theorem [prompt on **Fermat**'s theorem; do not accept or prompt on "Fermat's little theorem"]

9. One of this artist's pieces shows his assistant Paulette Goddard holding "the tree of life and love." Another of his paintings features a microscopic view of cells running through the middle, while a hand grasps a glowing dial and the title figure worriedly operates controls. That painting outraged Nelson Rockefeller because it depicted Vladimir Lenin, and survives today as a piece that depicts man as the "controller of the universe." He also painted laborers at the River Rouge plant of the Ford Company. This artist of Detroit Industry and Man at the Crossroads was married to the artist of Self-Portrait with Monkey. For 10 points, name this the one-time husband of Frida Kahlo, a Mexican muralist.

ANSWER: Diego Rivera [or Diego María de la Concepción Juan Nepomuceno Estanislao de la Rivera y

052-09-12-13110

10. The Cavalli-Sforza chord distance method assumes this is the only force at work, and the A-type Extinction Vortex occurs when this force becomes too powerful. For a single locus, the ability of this force to change frequencies is equal to one over two N. The amount of time needed for a new neutral allele to achieve a fixed frequency via this force is equal to four times the population size. In Kimura's neutral theory, this is the major force driving evolution. The founder effect and bottleneck effect are examples of this effect, which is more likely to occur with small population sizes. For 10 points, name this random change in allele frequencies.

ANSWER: genetic drift

Barrientos Acosta y Rodríguez]

001-09-12-13111

11. This holiday is often celebrated with comic plays and puppet shows called its namesake "speils." This holiday can also involve singing the song "Shoshanat Yaakov" and eating Fazuelos. Many celebrants of this holiday also share gift baskets called "Misloach manot." Another custom of this holiday is shaking a gragger during the reading of a story that includes the demotion of Vashti and the construction of giant gallows. This holiday, which is held on the fourteenth of Adar, celebrates the heroism of Mordecai and the death of the evil Haman. For 10 points, name this Jewish holiday which and celebrates the story of Esther.

ANSWER: **Purim**

015-09-12-13112

12. The narrator of this book decides to become a writer after borrowing Falk's library card to check out H. L. Mencken's collection *Prejudices*. While working for an optical company, this book's narrator is tricked by Olin into fighting with his coworker Harrison. Near the end of this book, the narrator leaves the Communist Party after witnessing the trial of his friend Ross. This book's second section, "The Horror and the Glory," describes the narrator's encounters with racial prejudice in Chicago, and was originally published separately as American Hunger. Its first section, "Southern Night," begins with its author relating how he accidentally burned down his family's house in Mississippi. For 10 points, name this autobiography by Richard Wright.

ANSWER: Black Boy

004-09-12-13113

13. In the liquid drop model, this idea is responsible for the asymmetry energy. This rule is the reason that, at absolute zero, Fermi gases has greater energy ideal gases. Because its nuclei obey this rule, helium-3 has two superfluid phases rather than one. The Hartree-Fock method includes this statement implicitly by assuming the wavefunction is a Slater determinant. This law is a consequence of having a system with a wavefunction that is antisymmetric with respect to interchanging coordinates. It is responsible for the degeneracy pressure seen in white dwarfs and neutron stars. For 10 points, name this requirement that Fermions in the same location must have different quantum numbers, a principle most often applied to the electrons in an atom.

ANSWER: the Pauli exclusion principle

14. This man's father formed a "Gang of Four" with politicians like Percy Sutton and once ran on a gubernatorial ticket with Arthur Goldberg. A state Court of Appeals had to overturn the appellate division and say that this man had the legal right to appoint Richard Ravitch to a certain position. After a series of controversies, including reports of domestic abuse and improperly obtaining World Series tickets, this man said he will not run for reelection, opening the way for an Andrew Cuomo campaign. This man assumed his current position after sex-fueled controversies forced his predecessor, Elliot Spitzer, to resign. For 10 points, name this partially blind politician who serves as the governor of New York.

ANSWER: David Paterson

052-09-12-13115

15. This thinker introduced a complex geometric figure called the "totemic operator" to demonstrate the path from one member of a pair of binary opposites to the other. He alleged that the reciprocal exchange of women is the sole basis of kinship, and broke down myths into units called mythemes in order to classify them. One of his series ends with the volume *The Naked Man*, and synthesizes the beliefs of several small New World tribes, including the Brazilian Bororo, whom he had earlier discussed in his memoir *Tristes Tropiques*. For 10 points, name this French structural anthropologist, whose *The Raw and the Cooked* began his tetralogy *Mythologiques*.

ANSWER: Claude Lévi-Strauss

019-09-12-13116

16. After talking to a lifeguard, the protagonist of this novel decides not to back up a request made by Cheswick, causing Cheswick to become stuck in a pool and drown. At the end of this novel's second part, the protagonist resumes his rebellion by smashing his hand through a glass panel to reach for a pack of cigarettes. This novel is narrated by a six foot seven tall character who describes the collective forms of authority as "The Combine." Its protagonist arranges for the prostitute Candy Starr to sleep with Billy Bibbit, takes other Acutes on a fishing trip, and is smothered out of mercy by Chief Bromden after being lobotomized. Set in an Oregon mental hospital, for 10 points, name this novel about Randle Patrick McMurphy's rebellion against Nurse Ratched, written by Ken Kesey.

ANSWER: One Flew Over the Cuckoo's Nest

064-09-12-13117

17. Following this battle, one side attempted a disastrous offensive known as the Mud March. During it, the Confederate soldier Richard Rowland Kirkland aided wounded Union soldiers and became known as the Angel of one location. That location was the site of a failed assault by Edwin Sumner that was repulsed by the First Corps of James Longstreet. A fight for Marye's Heights took place during this battle, which saw Union engineers build numerous pontoon bridges to cross the Franklin River of Northern Virginia. For 10 points, name this lopsided Confederate victory of the Civil War, in which Robert E. Lee crushed Union forces under Ambrose Burnside.

ANSWER: Battle of **Fredericksburg**

064-09-12-13118

18. This composer used magnetic tape playing pre-recorded music to accompany the singing of nine Sybils, nine Anchorites, and Lucifer in a musical play about the end of time. This composer developed namesake percussion instruments with removable tone bars for a system of musical instruction he pioneered along with Gunild Keetman. Along with developing his namesake "Schulwerk" to teach music education to children, this composer wrote the songs "Veni, veni, venias" and "In trutina" for a piece based on manuscripts from a monestary in Benedictburen. That cantata includes the movements "On the Lawn" and "In the Tavern," and begins with a piece complaining about the Roman goddess of fate. For 10 points, name this German composer whose song "O Fortuna" opens his cantata *Carmina Burana*.

ANSWER: Carl Orff

19. The city of 'Aydhab was destroyed by a leader of this group, Barsbay. Later leaders of this group were annihilated by Albanian troops in the massacre of the Citadel. This group defeated the Franks led by Louis IX at the Battle of Al Mansurah. This group was divided into the Bahris and the Burjis, and its sultan Qutuz allied with Baibars to win the Battle of Ayn Jalut. This group established a sultanate that led Egypt and Syria from 1250 to 1517, and was destroyed by Muhammad Ali in 1811. For 10 points, name this military caste consisting of slaves who converted to Islam.

ANSWER: mamluks

004-09-12-13120

20. This book's third section attacks the "despotism of custom," and approvingly cites Wilhelm von Humboldt's *Sphere and Duties of Government* to insist on the importance of the diversity of human development. Its second section argues that a belief becomes a dead "hereditary creed" if it is no longer vigorously discussed, and that anyone who compels an opinion to silence erroneously assumes infallibility. Its fourth section claims that only a violation of "a distinct and assignable obligation to any other person" legitimately allows society to exercise authority over the individual. Published in 1859, this book argues that the state should only punish people for actions that harm others. For 10 points, name this book which presents a utilitarian defense of personal freedom, written by John Stuart Mill.

ANSWER: *On Liberty*

004-09-12-13121

21. This group released the film *Operation Abolition*, which used television footage of protesting California college students being dragged down marble steps. One member of this group, Joe Starnes, had unkind words for "Mr. Euripides" and Christopher Marlowe when arguing with Hallie Flanagan. The precursor to this entity investigated the fascist Business Plot. This committee lost all its prestige when it subpoenaed Abbie Hoffman, and it gained notoriety for the Hollywood blacklists and the trial of Alger Hiss. For 10 points, name this committee run by United States Representatives that investigated "subversive" activities.

ANSWER: **HUAC** [or **House Committee on Un-American Activities**]

020-09-12-13122

22. In one novel by this author, the protagonist engages in a night of drunken debauchery, which includes watching *Love's Crucifixion* at a cinema and meeting the call girl Olga Sologrub at the Miki Bar. In addition to writing a novel about Eugene Hilliot's promotion to the engine room of the steamer *Oedipus Tyrannus*, this author wrote a novel which climaxes with the protagonist's wife being run over by a horse with the number seven branded on its rump. That novel begins with Jacques Laruelle remembering the protagonist, an alcoholic consul whose wife Yvonne runs away with his half-brother Hugh on the Day of the Dead in Mexico. For 10 points, name this British author of *Ultramarine* who wrote about the death of Geoffrey Firmin in *Under the Volcano*.

ANSWER: Malcolm Lowry

015-09-12-13123

23. A recent large shakeup of this language added keyword-only arguments, differentiated between bytes and strings, and made "print" a function. Mutable default arguments can be a problem in this language because defaults are evaluated at function declaration time. It has metatyping and uses duck typing. The "xrange" type from this language can be used for iteration. This language has list comprehension syntax and a "dict" data type. Almost uniquely, instead of braces to mark blocks, this language uses whitespace. For 10 points, name this programming language commonly used for scripts, especially on web servers.

ANSWER: Python



National All-Star Academic Tournament Round 13 Bonuses

- 1. Olof Palme served two stints as prime minister of this country, and was assassinated in 1986 walking home from a movie theater in a case that remains unsolved. For 10 points each:
- [10] Name the country, which was also the home of the diplomat Axel Oxenstierna.

ANSWER: Sweden

[10] This 1520 series of mass executions of Swedish nobles was ordered by the Danish king Christian II in an attempt to keep Sweden in the Kalmar Union with Denmark and Norway.

ANSWER: Stockholm Bloodbath [or Stockholms Bloodbad]

[10] This king of Sweden from 1523 to 1560, and founder of a namesake ruling house of Sweden, established Swedish independence from Denmark and the Kalmar Union.

ANSWER: <u>Gustav</u>us <u>I</u> [or <u>Gustav</u>us <u>Vasa</u>; prompt on <u>Gustav</u>us]

030-09-12-13201

- 2. This man was defeated in 2000 by Vojislav Kostunica, and he was later tried for crimes against humanity before being found dead in his prison cell in 2006. For 10 points each:
- [10] Name this former Serbian president.

ANSWER: Slobodan Milosevic

[10] This country was once a part of Serbia. Slobodon Milosevic invaded this area in 1999, causing NATO to launch a retaliatory airstrike.

ANSWER: Kosovo

[10] In 1995, this town in Bosnia-Herzegovinia, a UN-designated safe haven, was beseiged by Bosnian Serbs. Approximately 7,000 Muslim men and boys here were massacred.

ANSWER: Srebrenica

030-09-12-13202

- 3. The most famous study of these entities drew on Giordano Bruno's work on them. For 10 points each:
- [10] Name these entities that Pythagoras declared as representative of God or the sum of all beings.

Another philosopher declared that they are simple substances that make up everything.

ANSWER: monads

[10] The *Monadology* was authored by this philosopher who formulated the principle of sufficient reason and discovered calculus independently of Newton.

ANSWER: Gottfried Wilhelm **Leibniz**

[10] The Gnostic use of the monad was condemned by this philosopher, a Neoplatonist who was taught by Ammonius Saccas and who authored *The Six Enneads*.

ANSWER: Plotinus

- 4. This musical launched the career of Florence Mills. For 10 points each:
- [10] Name this musical written by Noble Sissle and Eubie Blake, who composed its songs "I'm Just Wild About Harry" and "Love Will Find a Way." Its successful run in 1921 integrated Broadway audiences and helped launch the Harlem Renaissance.

ANSWER: Shuffle Along

[10] The chorus of *Shuffle Along* included this actor, who starred in *The Emperor Jones* and *Othello*, and sang a renowned version of "Ol' Man River" for the film *Show Boat*. Because of his public support of the Soviet Union, his passport was revoked by the State Department in 1950.

ANSWER: Paul Robeson

[10] Besides writing the music for *Shuffle Along*, Eubie Blake was a standount performer of ragtime, which was pioneered by this American composer of "The Entertainer" and "The Maple Leaf Rag."

ANSWER: Scott Joplin

004-09-12-13204

- 5. At a dinner in this building, Reverend Arthur Beebe convinces Charlotte Bartlett to accept an offer made by the Emersons. For 10 points each:
- [10] Identify this fictional hotel in Florence, to which George Emerson returns at the end of the novel for his honeymoon.

ANSWER: the **Pension Bertolini**

[10] The room switch in the Pension Bertolini is intended to provide the title *Room With a View* to this protagonist, who soon afterwards sees a stabbing on the street, and eventually marries George.

ANSWER: <u>Lucy</u> Honeychurch [or Lucy <u>Honeychurch</u>]

[10] A Room With a View was written by this author of Howards End, A Passage to India, and Two Cheers for Democracy.

ANSWER: Edward Morgan Forster

019-09-12-13205

- 6. The top of these are anvil-shaped because the jet stream cuts them off. For 10 points each:
- [10] Name these tall clouds that often indicate severe weather.

ANSWER: cumulonimbus clouds

[10] So-called hot tower cumulonimbus clouds can penetrate this atmospheric boundary. Lying between the lowest two atmospheric layers, is is the elevation at which temperature stops decreasing with height.

ANSWER: the **tropopause**

[10] This quantity is minus the derivative of atmospheric temperature with respect to height. It switches signs at the tropopause.

ANSWER: the temperature <u>lapse rate</u> (prompt on <u>gamma</u>)

- 7. Popobawa is a bat-winged example of these creatures that partakes in sodomizing young men. For 10 points each:
- [10] Tikoloshe, Boto, and Lidérc are three more examples of this class of male demons known for sexually preying on oft-asleep women. They are the male counterpart of the succubi.

ANSWER: **incubus** [or **incubi**]

[10] Prior to becoming an incubus, Popobawa was said to be one of these supernatural creatures typically made up of smokeless fire and subdivided into 'ifrit, marid, shaytan, and ghul.

ANSWER: djinni [accept genie]

[10] In the list of Sumerian kings, the father of Gilgamesh was said to be Lilu, a notorious incubus. In the Epic of Gilgamesh, he is the progeny of this third king of Uruk, husband of Ninsun, and hero of his own two epic texts.

ANSWER: Lugulbanda

001-09-12-13207

- 8. They are used in the production of the selective estrogen receptor modulator Tamoxifen. For 10 points each:
- [10] Name these organometallic reagents that are useful for the alkylation of aldehydes and ketones.

ANSWER: **Grignard** reagents

[10] At the core of Grignard reagents is this element whose alloy Elektron is used in the aerospace industry.

ANSWER: **magnesium** [or **Mg**]

[10] Grignard reagents convert a carbon atom into a carbanion, an example of one of these molecules that bind to electrophiles and are often substituted in organic reactions.

ANSWER: nucleophiles

040-09-12-13208

- 9. ?The title creature is represented by an English horn solo as it swims on a black river around the underworld. For 10 points each:
- [10] Identify this third section of the *Lemminkäinen* suite, which depicts a majestic animal from the *Kalevala*.

ANSWER: "The **Swan of Tuonela**" [or "**Tuonelan Joutsen**"]

[10] "The Swan of Tuonela" was written by this Finnish nationalist composer of *En Saga*, the *Kullervo* Symphony, and *Finlandia*.

ANSWER: Johan Julius Christian "Jean" Sibelius

[10] This Sibelius waltz was written as incidental music for his brother-in-law Arvid Järnefelt's play *Death*. It depicts a son falling asleep at the side of his sick mother's bed and dreaming of the mother's dance.

ANSWER: "Valse Triste"

019-09-12-13209

- 10. This play begins when its title character sits down on a rock and is asked to leave because the land is sacred to the Furies. For 10 points each:
- [10] Name this second of the Theban plays in which the title character predicts the deaths of his sons Polynices and Eteocles before dying.

ANSWER: *Oedipus at Colonus* [or *Oidipous epi Kolonoi*]

[10] This ancient Greek playwright of *Oedipus Rex* and *Antigone* wrote *Oedipus at Colonus*.

ANSWER: **Sophocles**

[10] In this Sophocles play, Deianeira's jealousy over Iole causes her to send her husband Heracles a robe laced with Nessus's blood, inadvertently killing him.

ANSWER: The **Trachiniae** [or **Women of Trachis**]

- 11. This man was succeeded by Heinrich Bullinger. For 10 points each:
- [10] Name this Swiss leader of the Reformation, who attacked such Catholic practices as fasting during Lent and using icons in worship. He was eventually slain in battle in 1531.

ANSWER: Ulrich Zwingli

[10] In this 1529 meeting at a namesake German castle, Zwingli and Martin Luther tried to work out a dispute over the Lord's Supper. Zwingli believed the bread and wine were just symbols, while Luther felt it was tied to the true body of Christ.

ANSWER: Marburg Colloquy

[10] Zwingli ultimately died during the second of these conflicts between Protestant and Catholic forces in Switzerland. They takes their name from a Swiss municipality, the site of Zwingli's eventual death.

ANSWER: Kappel Wars

052-09-12-13211

12. Name these cities of Oregon, for 10 points each.

[10] This city, the home of the Rose Garden and the NBA's Trail Blazers, is the largest in Oregon.

ANSWER: Portland

[10] This city, near the mouth of the Columbia, is named for American fur baron John Jacob.

ANSWER: Astoria

[10] This college town in the Willamette Valley served as Oregon's capital in the 1800s before Salem was chosen.

ANSWER: Corvallis

026-09-12-13212

13. Taking the divergence of this equation and re-arranging yields the charge continuity equation, according to which charge is conserved in Maxwell's equations. For 10 points each:

[10] Name this member of Maxwell's equations that gives the integral of a magnetic field around a closed curve.

ANSWER: **Ampère**'s law [or the **Ampère**-Maxwell relation]

[10] In SI units and for the case of static fields, Ampère's law gives the the integral of a magnetic field around a closed curve as the permeability times the net amount of this going through any surface bounded by the curve.

ANSWER: electric current [prompt on I]

[10] Taking the curl of Ampère's law, inserting Faraday's law of induction and rearranging yields this equation for the magnetic field. According to this equation, in free space, the speed of light squared times the Laplacian minus the second time partial all operating on the magnetic field gives zero.

ANSWER: the vector wave equation

- 14. A migrant from North Carolina to New York attempts to win money for his sick wife in this author's short story "King of the Bingo Game." For 10 points each:
- [10] Name this writer, who also depicted the racist, but secretly half-black, Senator Adam Sunraider in an unfinished manuscript originally published as *Juneteenth*, and a nameless employee of Liberty Paints in another novel.

ANSWER: Ralph Ellison

[10] In Ralph Ellison's *Invisible Man*, this character agitates against the Brotherhood for being insufficiently militant. His byname changes from "the exhorter" to "the destroyer."

ANSWER: Ras

[10] In January 2010, Ellison's full manuscripts for what was once excerpted as *Juneteenth* were published as this 1100-page volume.

ANSWER: Three Days Before the Shooting

019-09-12-13214

- 15. Joseíto Fernández composed a popular song based on this author's poem "Guantanamera." For 10 points each:
- [10] Name this author of the political poem "I dream of marble cloisters," who was killed in 1895 after founding the Cuban Revolutionary Party.

ANSWER: José Martí

[10] This other revolutionary was executed by a firing squad at Bagumbayan. He wrote an anti-colonial novel about Crisostomo Ibarra, who returns from Europe and confronts injustices perpetrated by Padre Salvi and Padre Damaso.

ANSWER: José Rizal

[10] Rizal and Martí both wrote in this language, even though it was the language of the European country they were rebelling against.

ANSWER: **Spanish** [or **Español**]

063-09-12-13215

- 16. In one speech, this man claimed that "the Götterdammerung has come for Odin and his crew" and asked, "Is there any hell hotter than that of being a Quisling, unless it is that of being a Laval or a Mussolini?". For 10 points each:
- [10] Name this Vice President from Iowa who proclaimed the "four duties" in his "Century of the Common Man" speech, and had earlier served in FDR's cabinet during the New Deal.

ANSWER: Henry Agard Wallace

[10] Henry Wallace served in FDR's cabinet in this position, other holders of which include Wallace's father, Henry C. Wallace, and the current holder, Tom Vilsack, all of whom are from Iowa.

ANSWER: Secretary of **Agriculture**

[10] Due in part to his global idealism as expressed in the "Century of the Common Mans" speech, Wallace was passed over for the vice presidential nomination in 1944 in favor of this Missouri Senator.

ANSWER: Harry S. Truman

- 17. For 10 points each, name these second messengers.
- [10] This first second messenger to be discovered is converted from ATP by adenylyl cyclase and activates protein kinase A.

ANSWER: **cAMP** [or **cyclic AMP**; or **cyclic adenosine monophosphate**; do not accept or prompt on "AMP"]

[10] These proteins include the *Ras* superfamily and are named for the purine nucleotides they bind to. Their alpha subunits can break off and bind to phospholipase C.

ANSWER: **G** proteins

[10] This second messenger is produced, along with diacylglycerol, from the cleavage of PIP2 by phospholipase C. It ultimately causes an increase in the intracellular calcium concentration.

ANSWER: **IP3** [or **inositol triphosphate**]

024-09-12-13217

- 18. This sociologist coined the phrase "self-fulfilling prophesy," and his namesake "thesis" links Protestant pietism to early experimental science. For 10 points each:
- [10] Name this man who worked on "middle-range theories" to connect empirical and theoretical results, the author of *Social Theory and Social Structure*.

ANSWER: Robert Kapris Merton

[10] Merton was one of the original advocates of this theory, which suggests that social structures can encourage criminal behavior.

ANSWER: strain theory

[10] Those social structures can induce anomie, which may encourage crime; anomie originated in the work of this French sociologist who wrote *Suicide*.

ANSWER: David Émile **Durkheim**

022-09-12-13218

- 19. Identify some things about the measurement of a quantity whose modern value is about 4.5 billion years, for 10 points each.
- [10] Late-19th-century attempts to determine this quantity by cooling rates, notably by Lord Kelvin, resulted in values of tens of millions of years, which is much too low. Those calculations largely failed because they did not account for sub-surface radioactive decay heat, which was unknown at the time.

ANSWER: the <u>age of the Earth</u> (accept any reasonable equivalents; prompt on the <u>age of the Solar</u> <u>System</u> or <u>age of the planets</u>)

[10] Still, Lord Kelvin was much less wrong than this Irish bishop and darling of young-earth creationists. He used a literal interpretation of the King James Bible to date the Earth's creation to either October 22 or October 23, 4004 BC.

ANSWER: James **Ussher**

[10] Radiometric dating, which provides the accurate modern estimates of the Earth's age, was developed by Ernest Rutherford and this Englishman, who also discovered isotopes.

ANSWER: Frederick Soddy

- 20. A portion of an army, but not the title figure, can be seen in this painting. For 10 points each:
- [10] Name this 1812 painting, at the top of which a nearly black, swirling "snow storm" almost blots out the sun. It depicts the title figure's military movements during the third century BCE.

ANSWER: Snow Storm: <u>Hannibal and His Army Crossing the Alps</u>[or Snow Storm: <u>Hannibal Crossing the Alps</u>]

[10] This British artist of *Rain*, *Steam and Speed* and *The Fighting Temeraire* painted *Hannibal Crossing the Alps*.

ANSWER: Joseph Mallord William Turner

[10] In this painting by Turner, the dead and sick occupants of the title vessel are being thrown overboard. A brilliant orange setting sun lights the scene through the clouds.

ANSWER: The <u>Slave Ship</u> [or <u>Slavers Throwing Overboard the Dead and Dying</u>, Typhoon Coming On]

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- 21. Saturnius takes this character as his empress, and her Moorish lover Aaron is her partner-in-crime. For 10 points each:
- [10] Name this character who allows her sons Chiron and Demetrius to "satisfy their lust" on Lavinia. She later eats a pie baked with the remains of her children inside of it.

ANSWER: Tamora

[10] Tamora is the enemy of this Shakespearean tragedy's title Roman general, who puts his tongue-less daughter out of her misery before being killed by the emperor in a glorious bloodbath.

ANSWER: Titus Andronicus

[10] Shakespeare's early plays include *Titus Andronicus* and this comedy about Berowne, Longaville, and Dumaine, who swear an oath to avoid women for three years, but end up courting Rosaline, Maria, and Katherine.

ANSWER: Love's Labours Lost