

1. At the end of this play, one character laments that his destiny is "to be thirteenth at table." Another character in this play notes that a "big clock with figures that go out and in" has stopped counting time, before noting that a book which "must be a hundred years old" contains a picture of a woman standing next to Death holding an hourglass. One character in this play medicalizes the idea of spiritual treatment with the idea of the "life-illusion," which entices the alcoholic theology student Molvik. A daughter in this play's "tableau of filial affection," who is going blind from a hereditary condition, may actually be the child of Hakon Werle. For 10 points, identify this play, in which the title creature lives in an artificial grotto constructed in Hjalmar Ekdal's home, written by Henrik Ibsen.

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

019-13-64-10101

2. According to one account, the designer of this building inscribed his name under that of the commissioner. A statue of Triton was placed at each corner of this building. An account by Muhammad al-Idrisi conflicts with claims that the top portion of this building was converted into a mosque by Ahmad Ibn Tulun. Al-Ashraf Qaitbay used the stones from this building to construct his eponymous citadel. Statues of Arsinoe, along with other parts of this building, were discovered underwater in 1994 by Jean Yves Empereur. Hermann Thiersch was an early modern scholar of this building, which was completely abandoned after a 1323 earthquake. This building was built based on the plans of Sostratus of Cnidus. For 10 points, name this large tower built by the Ptolemaic Kingdom on the island of Pharos to help guide ships.

ANSWER: Lighthouse of Alexandria [or Pharos of Alexandria]

149-13-64-10102

3. One problem with this algorithm can be resolved by choosing a variable according to the smallest subscript rule of Bland. Despite the use of a feasible dictionary, this algorithm can fail when a pivot is degenerate, which causes it to cycle. By constructing a deformed cube that had every vertex visited by this algorithm, Klee and Minty showed that this algorithm had an exponential worst-case performance, but it usually only takes 2m to 3m iterations where m is the number of equality constraints. This algorithm uses a non-negative slack variable to change an inequality into an equality. That Bland rule is used to decide which variables enter or leave the basis. For 10 points, identify this ubiquitous mathematical optimization algorithm in linear programming that was first introduced by George Dantzig.

ANSWER: **simplex** method [or **simple** algorithm]

4. In a scene in one of this director's films, a painter allows his protégé to complete a portrait of Countess Zamikow when he is unable to capture the likeness of her eyes. That film by this director depicts the homosexual relationship between the painter Zoret and his model and protégé, Michael. Richard Einhorn's composition *Voices of Light* was inspired by another of this director's films. In one scene of that film by this director, flowers growing beneath a wall are juxtaposed with a skull, out of whose eye socket a worm crawls. That film almost completely lacks establishing shots and relies mostly on medium and close-up shots. The main character of that film has her already closely-cropped hair shorn off as penance, while she weeps. That film features a singular performance by Maria Falconetti. For 10 points, identify this director of *La Passion de Jeanne d'Arc*.

ANSWER: Carl Theodor **Drever** [or Karl **Nielsen**]

066-13-64-10104

5. The paragraph introducing this term tells the story of a sarcastic pilot from World War I and contains a footnote explaining that the physical manifestation of these items would involve an object "a hundred feet in diameter" that poses a danger to major cities. They are described as "mind-first" forces in the same book that claims Nietzsche "hungered" for these things and accuses Roger Penrose of believing that "special quantum physics powers" render the human brain one of these. The lack of need for these items is demonstrated in a discussion of the Baldwin effect in the section "The Tools for R and D," which shows how these items are not required in light of the "universal acid" explanation. The book which popularized this term suggested that "good reductionists" believe everything can be explained without these things. For 10 points, identify these items described in *Darwin's Dangerous Idea* by Daniel Dennett, which bestow design from above without a foundation, and are contrasted to the "building-up" process of cranes.

ANSWER: **skyhook**s

019-13-64-10105

6. This economist proposes creating a "prize fund" for vaccine research that will replace medical patents and founded the Initiative for Policy Dialogue. With a colleague, he noted that wages must remain high enough to discourage shirking, and thus wages cannot drop enough to eliminate unemployment even in the absence of a minimum wage. This inventor of the "efficiency wage" hypothesis alongside Carl Shapiro worked with Linda Bilmes to assess the cost of American action in Iraq in *The Three Trillion Dollar War*. A theorem named for him and Bruce Greenwald addresses the role of screening in information asymmetry. This former head of the World Bank lambasted the IMF's role in promoting free trade in the 1990s. For 10 points, name this former Bill Clinton advisor who wrote *Globalization and Its Discontents*.

ANSWER: Joseph Stiglitz

019-13-64-10106

7. Jules Bledsoe interrupted one performance of this play to lecture some hecklers about proper theater manners. The title character of this play is afraid of several shapeless creatures known as the "little formless fears" and comes across a crouching man shaking dice, whom he recognizes as Jeff, a man he murdered for cheating in a dice game. The constant sound of tom-toms haunts the title character, who kills a crocodile summoned by a priest just before being cornered by the white overseer Smithers and several rebellious subjects. In its Provincetown Players-staged premiere, Charles Sidney Gilpin played the title role in blackface. For 10 points, name this drama in which ex-Pullman Porter Brutus cultivates a legend that he can only be killed with a silver bullet, written by Eugene O'Neill.

ANSWER: The **Emperor Jones** 

8. In one post, this man banned the performance of *Lohengrin* in his country and put down a strike in Decazeville. This man was defeated in a duel by the Minister of the Interior Charles Floquet. This man was supported by Deroulede, who led the League of Patriots. After fleeing to Brussels, this man shot himself in the head on the grave of his mistress Madame de Bonnemains. This man served as the Minister of War in Freycinet's cabinet, a position that Clemenceau arranged for him. In 1889 this man won an election to become a deputy of Paris, which prompted his opponents to charge him with treason. For 10 points, name this French general of the Third Republic who some people feared would lead a coup.

ANSWER: Georges Ernest Jean-Marie Boulanger

149-13-64-10108

9. Age hardening in alloys of this element was discovered by Alfred Wilm. Industrially, this element is used to deoxidize compounds when they are difficult to reduce or only form carbides with carbon. Nearly all catalysts used in fluid catalytic cracking, including zeolites, contain this element. Although not titanium, organic compounds containing this element act as catalysts in the polymerization of olefins, as discovered by Ziegler and Natta. Dissolving this element's oxide in cryolite is an important step in one process used to produce this element. Although it is not iron, this metal's trichloride is used in the synthesis of alkyl and acyl derivatives of aromatic compounds in the Friedel-Crafts reactions. This element's oxide is produced commercially by the Bayer process, in which finely ground bauxite is used; the product of that process is then input to the Hall-Heroult process. For 10 points, identify this metal with chemical symbol Al.

ANSWER: aluminum [or aluminium; or Al until is read]

066-13-64-10109

10. Before being defaced multiple times, one of these works showed Chinese immigrants sniggering at two Indians: one diving away from an oncoming train while the other is curled in a fetal position on the tracks, hugging a bottle of liquor. Another of these works depicts a Jewish ornithologist reading a book in a cage labeled 'UNKNOWN' while a bear is being fed fish by a zookeeper. Yet another of these works shows a cannon ready to be fired a few feet from Chief Wamapo. Perhaps the most famous of these works depicts Reverend Bradley punching a woman in the stomach so hard that she is knocked off her feet; that work is now titled *Sunday Boxing*, after a fortuitous rename from *A Lively Fisting*. In yet another of these works, a Molotov cocktail is thrown from the top of a hill by a resident of Eagleton. For 10 points, identify these fictional works of art that Leslie Knope shows visitors on Parks and Rec.

ANSWER: <u>mural</u>s in the Pawnee <u>City Hall</u> in Parks and Recreation [or obvious equivalents, such as <u>painting</u>s located on the walls of <u>Pioneer Hall</u> in the Pawnee City Hall; or <u>mural</u>s on the wall of the <u>Pawnee City Council building</u> because Kristen Bell once tweeted that; prompt on <u>mural</u>s located in the town of <u>Pawnee</u> or obvious equivalents; do not accept "Town Hall" in place of "City Hall"]

066-13-64-10110

11. One author who wrote in this country wrote a "collective memoir" of his time at boarding school; that author from this country, Miguel Cané, is part of its Generation of 1880. Another author from this country wrote about an Englishman who finds out that his soulmate is a monkey in "An Unexplainable Phenomenon," one of twelve stories from his *The Strange Forces*. This home country of Leopoldo Lugones is also where a novel was written about the painter of the canvas *Maternity*, who kills María Iribarne, and where an author wrote about Fernando Castillo's "Report on the Blind." For 10 points, name this home country of the author of *The Tunnel* and *On Heroes and Tombs*, Ernesto Sabato, which is also where Ricardo Guiraldes's *Don Segundo Sombra* discussed the "shadow" cast over this country's history by the gaucho archetype.

ANSWER: Argentina

12. One of these events was coordinated in part by numbered leaflets, such as the one addressed to "throwers of incendiary stones," issued by its namesake United National Leadership. During another of these events, the arms-carrying ships Santorini and Karine-A were captured. An early attempt to end that one of these events was the Sharm al-Sheikh agreement, and during it the UN announced a Road Map to Peace. That one of these events was sparked by a dispute over control of the Haram al-Sharif complex, giving it its sometime name of the "al-Aqsa [one]," and it was followed by "unilateral disengagement." The first of these events was officially ended by an agreement that created the PNA and was signed Yitzhak Rabin and Yasser Arafat; those were the Oslo Accords of 1993. For 10 points, name these two Palestinian uprisings against Israeli rule whose Arabic name literally means "shaking off."

ANSWER: intifadas [or intifadat; or First Intifada; or Second Intifada; or al-Aqsa Intifada]

149-13-64-10112

13. When these particles are restricted to move in two-dimensional periodic potential under the influence of a magnetic field, their energy spectrum is a Cantor set, which is known as Hofstadter's butterfly. The basis for a type of spectroscopy named for these particles is the Auger effect, in which one is emitted. These particles can be confined to two-dimensions using a heterojunction. A Bloch function combines a function that is periodic with an exponential that describes these particles; that function is a solution to the Kronig-Penney model. When the minimum of the conduction band does not have the same crystal momentum as the maximum of the valence band, a phonon is required for these particles to recombine with holes. For 10 points, identify this lepton whose charge is approximately -1.6 times 10 to the -19 Coulombs. ANSWER: electrons

066-13-64-10113

14. One building in this city served as the headquarters for the Energy Corporation in *Rollerball*. A legend about the best-known church in this city states that a black footprint located in the church's foyer was where the devil stomped his foot after discovering that Jörg von Halsbach had built windows that were cleverly concealed by columns. This city's park Englischer Garten is in the style of Capability Brown. That best-known church in this city has twin towers topped with a cupolas modeled after the Dome of the Rock in Jerusalem, which tower over the city. This city is located on the Isar River. That used in *Rollerball* is the BMW Headquarters and Museum. That best-known church is the Frauenkirche and its central square is Marienplatz. *Mein Kampf* was written after the failed Beer Hall Putsch in this city. For 10 points, identify this Bavarian city that hosts Oktoberfest.

ANSWER: **Munich** [or **München**]

066-13-64-10114

15. In Vietnamese mythology, a man performs this activity to recover a fragment of Heaven's Will and gives it to Le Loi when he joins his army. The powerful Sumerian priest Adapa stopped the wind from blowing because it interfered with this activity. Another man who makes his livelihood doing this activity opens a box containing his old age after spending 300 years with Otohime in the underwater palace of Ryujin. A specialist in this activity is crowned king of Seriphos as a reward for hospitably treating Danae and her son Perseus. In order to perform this activity, a god decapitates the best ox belonging to the owner of a mile-wide cauldron, but that giant's cowardice jeopardizes this activity. For 10 points, James Z. wants you to name how Urashima Taro and Dictys earned their livings, an activity that Hymir and Thor were performing when they nearly killed the Midgard Serpent.

ANSWER: **fish**ing [or being **fisherman**]

16. This artist wears a frilled choker in a self-portrait that painted while approaching eighty years old. A dog sits behind this artist's brother as that boy is on the knee of his father in a family portrait this artist painted at around the age of 15. Michaelangelo was supposedly deeply impressed with this artist's *Boy Bitten by a Crayfish*. This artist included a self-portrait in a depiction of Bernardino Campi making a portrait of this artist. Philip II tried to have this court painter married to a member of his court after hiring her on the recommendation of the Duke of Alba. This person painted a portrait of her sisters playing a game that she also depicted in another work. For 10 points, name this painter who depicted four men in wigs playing *The Chess Game*.

ANSWER: Sofonisba Anguissola

002-13-64-10116

17. Two of these works by this composer are titled "Cellensis," which refers to the town of Mariazell in Styria; the later one is by far the longest of these works by this composer, being in eighteen movements. The last of these works by this composer, which was also the composer's last major work, was scored for an orchestra with a full wind section, giving it its nickname "Harmonie". The last six of these works were composed for the nameday of Princess Maria Hermenegild. Another of them is in D minor and gets its common name from a performance staged when Lord Nelson visited Eisenstadt. In the second-to-last of these works, their composer quotes from the Adam and Eve duet in his oratorio *The Creation* for the words "Qui tollis peccata mundi" in the *Gloria*. For 10 points, identify these liturgical works by the son of a wheelwright, father of the string quartet, and composer of 104 symphonies.

ANSWER: Franz Joseph Haydn's masses

066-13-64-10117

18. This play was criticized by Samuel Johnson as containing a beginning and an end but no middle. The author's preface to this play notes that "the Apostle Paul himself thought it not unworthy to insert a verse of Euripides into the text of Holy Scripture" and concludes with a defense of the Aristotelian unity of time. This play is prefaced with the short essay "Of That Sort of Dramatic Poem Called Tragedy." The protagonist of this play questions whether his people enjoy being slaves and attempts to goad Harapha into coming close enough to fight him. Manoa delivers the news that the present holiday is in honor of Dagon to the title character, who initially refuses to attend the festival. Originally issued in the same volume as *Paradise Regained*, it begins with the title character "eyeless in Gaza." For 10 points, name this John Milton closet drama that ends with the Philistine temple being pulled down by the lover of Delilah.

ANSWER: Samson Agonistes

019-13-64-10118

19. The most common genetic cause of this disease is mutations in the LRRK2 gene. The most commonly used rating scale for this disease incorporates the Hoehn and Yahr staging scale. An important case study of this disease occurred when several people consumed MPPP, a synthetic opioid, that was contaminated with MPTP, which is metabolized by MAO-B to MPP+. That case study was documented by William Langston in the book *The Case of the Frozen Addicts*. This disease is characterized by proteinaceous inclusions of alpha-synuclein in neurons called Lewy bodies. The most common treatment for this disease is administration of levodopa. For 10 points, identify this neurodegenerative disorder that results from the destruction of dopamine-producing cells in the substantia nigra.

ANSWER: <u>Parkinson</u>'s disease [or idiopathic <u>parkinsonism</u>; or primary <u>parkinsonism</u>; or <u>hypokinetic</u> <u>rigid syndrome</u>; or <u>HRS</u>; or <u>paralysis agitans</u>]

20. The loss of an inertial navigation system by a group, led by Wesley Taylor, in this action led to them landing thirty-six minutes after the initial assault on Pearls. One side in this action operated out of Fort Rupert and Fort Frederick. Prior to this action, Paul Scoon was placed under house arrest by Hudson Austin's government. Joint Task Force 120 was led by Joseph Metcalf III during this action. This action was precipitated by the construction of an airstrip at Point Salines and by the overthrow of Maurice Bishop's government. Taking place shortly after the truck bombing of US barracks in Beirut, this action was code-named Operation Urgent Fury. For 10 point, name this military action ordered by Reagan against a socialist Caribbean nation.

ANSWER: United States invasion of Grenada [or Operation Urgent Fury until it is read]

149-13-64-10120

21. This man expressed discomfort with his time working with Twyla Tharp, and Jerome Robbins created his *Opus 19: The Dreamer* for this man to perform. Along with Mark Morris, this is the only dancer whose version of *The Nutcracker* has been nominated for an Emmy Award, and the two of them founded the White Oak Dance Project together. A 1980 collaboration with Liza Minelli was the televised special of this man "on Broadway." In 1974, this man defected to Canada in part for the opportunity to study under George Balanchine. For 10 points, name this Soviet, who is considered one of the greatest ballet dancers of all time.

ANSWER: Mikhail Baryshnikov



1. The secretary Leonore doesn't know where this man goes every morning, but is made responsible for keeping everyone but Alfred Schrella away from this man's adopted heir Hugo. For 10 points each:

[10] Name this character who seeks to acquire a son after his wife Edith is killed in an air raid, and does so by building a relationship with the bellhop at the Prince Heinrich Hotel.

ANSWER: **Robert** Faehmel [or **R**obert **Faehmel**; prompt on **Faehmel**]

[10] Robert Faehmel is the architect protagonist of *Billiards at Half-Past Nine*, a novel by this author of *End of a Mission* and *Group Portrait With Lady*.

ANSWER: Heinrich Theodor Böll

[10] Throughout *Billiards at Half-Past Nine*, the metaphor of these two animals is used to contrast the Nazi personality with that of the dissenter; the analogy is explained in depth by Robert's mother Johanna.

ANSWER: **buffalo**es and **lamb**s

019-13-64-10201

- 2. A boy was buried with his horse at this site's Mound 17. For 10 points each:
- [10] Name this site of two ancient Anglo-Saxon cemeteries. Located near Woodbridge, one of those sites contained an undisturbed ship burial.

ANSWER: Sutton Hoo

[10] It is thought that Raedwald, the ruler of this kingdom, ordered the ship burial. Initially ruled by the Wuffingas dynasty, this kingdom converted to Christianity during the rule of Sigeberht.

ANSWER: Kingdom of **East Anglia** 

[10] This man's *Ecclesiastical History of the English People* is the source of much of our knowledge about the rise of Christianity in Britain. He is the only native of Great Britain to be made a Doctor of the Church.

ANSWER: Saint **Bede** [or the Venerable **Bede**]

149-13-64-10202

- 3. Patterns of these things include semi-diurnal, diurnal, and mixed. For 10 points each:
- [10] Identify these regular falls and rises in sea level.

ANSWER: tides

[10] These nodes near the center of an ocean basin are points where there is no tidal range. The tidal crest rotates around these nodes.

ANSWER: amphidromes [or amphidromic points; or amphidromal points]

[10] These lines form irregular, concentric circles around an amphidromic point. They connect points of equal tidal ranges.

ANSWER: corange lines

- 4. This man's *Theseus and the Minotaur* group was once housed in an Athenian fountain. For 10 points each:
- [10] Name this ancient sculptor who depicted a man readying to throw the title object in his *Discobolus*.

ANSWER: Myron of Eleutherae

[10] Mark Antony took Myron's sculpture of *Apollo* from this city, before a dream warned Augustus to return it. It was also home to a large temple to Artemis.

ANSWER: **Ephesus** 

[10] This bronze nude by Polykleitos was praised by Galen for perfecting the Greek ideal of harmonious beauty, and may have been made to serve as an example of the ideal aesthetic canon.

ANSWER: **Spear-Bearer** [or **Doryphoros**]

002-13-64-10204

- 5. Eight of these animals were sacrificed in Temple times. For 10 points each:
- [10] Name this animal described in the book of Numbers as the only way to ritually purify a priest who has come into contact with a gravesite, which is subject to strange requirements such as having no bent hairs and being burnt and mixed with cedar wood and dyed wool.

ANSWER: red heifer [or red cow; or parah adumah]

[10] This *tanna* was one of the two high priests who prepared two red heifer sacrifices. This man's term was the last time that the Tetragrammaton was pronounced, and other legends state that Alexander the Great bowed down to him and agreed not to place a statue of himself in the Temple.

ANSWER: Simeon the Just

[10] The spot at which red heifer sacrifices were made was dedicated by this prophet, who led Jews back from Babylon and preached against intermarriage. His namesake book was once combined with Nehemiah.

ANSWER: Ezra

019-13-64-10205

- 6. This franchise was the first major team in American sports to lose 10,000 games, and there is no DH in the National League because this team's owner was fishing during the vote. For 10 points each:
- [10] Name this major league team that, before the 2013 season, acquired Michael Young from Texas and signed Delmon Young off a scrap heap.

ANSWER: Philadelphia **Phillies** [or Philadelphia **Phillies**]

[10] This controversial Phillies General Manager recently took a shot at people who compile prospect rankings, for some reason. He notoriously gutted the Phillies minor league system to acquire Hunter Pence, and insisted that he didn't care about walks, only production.

ANSWER: Ruben **Amaro**, Jr. [or **RAJ**]

[10] Among the prospects traded for Hunter Pence was this pitcher who made his major league debut in 2013, pitching eight scoreless innings with only 2 hits allowed. It's a good thing the Phillies don't need pitching or anything.

ANSWER: Jarred Cosart

- 7. This man was engaged to Mathilde of Austria, who died after her dress caught on fire because of a cigarette. For 10 points each:
- [10] Name this King of Italy who was assassinated by Gaetano Bresci in 1900. He supported the Triple Alliance with Germany and Austria-Hungary as king.

ANSWER: Umberto I

[10] Umberto I was the son of this Italian king, the first king of a modern united Italy. This king was excommunicated after the Battle of Castelfidardo.

**ANSWER: Victor Emmanuel II** 

[10] Umberto I's support of this massacre was one reason why he was killed by Gaetano Bresci. This massacre ended a series of riots in Milan against the government of Antonio di Rudini.

ANSWER: Bava-Beccaris massacre

149-13-64-10207

8. A November 2011 report revealed this man had broken a promise to forego a salary. For 10 points each: [10] Name this former basketball player and embattled mayor, who had previously donated that salary to the funding for the Detroit Police Department.

ANSWER: Dave Bing

[10] This Emergency Financial Manager represented Chrysler during its restructuring before being hired in March to oversee Detroit's finances. In July 2013, this man filed for Detroit to enter bankruptcy proceedings.

ANSWER: Kevyn Orr

[10] This President and first openly gay member of the Detroit City Council basically stopped showing up to work after allegations emerged of a relationship with a teenage boy that he had been "mentoring". Orr saved a few bucks by promptly severing his pay.

ANSWER: Charles Pugh

002-13-64-10208

- 9. On the right side of this painting a woman breastfeeds an imprisoned man, and Saint Martin gives part of his cloak to a naked man on the ground. For 10 points each:
- [10] Name this painting in which an angel at the top causes mankind to perform the title acts of kindness.

ANSWER: <u>Seven Works of Mercy</u> [or <u>Seven Acts of Mercy</u> or <u>Sette opere di Misericordia</u>]

[10] Seven Works of Mercy was painted by this precursor to the Italian baroque movement. A tax collector questions whether he is indeed being asked to serve by a beam of light in another painting by this artist.

ANSWER: Michelangelo Merisi da Caravaggio

[10] This Caravaggio painting depicts the death of a saint after telling off the King of Ethiopia for lusting after a nun who was also his niece. In this painting, a soldier stands over the title figure, prepared to strike him down.

ANSWER: The Martyrdom of Saint Matthew

- 10. This constant appears in the Morse potential and, due to its small size, its value is sometimes reported as multiplied by harmonic vibrational frequency. For 10 points each:
- [10] Identify this constant represented by chi-sub-e that accounts for deviations from ideal harmonic behavior.

ANSWER: anharmonicity constant

[10] The Morse potential is used to model this type of molecule. This type of molecule contains TWO atoms.

ANSWER: diatomic molecule

[10] The well depth parameter of the Morse potential is related to this parameter by subtracting the vibrational energy of the ground state. It is the enthalpy required to cleave a bond by homolysis.

ANSWER: bond dissociation energy [or BDE]

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- 11. This man owned a magic cup which could be used to predict the future and observe the seven heavens, and he invented the use of the sudreh and the kushti. For 10 points each:
- [10] Name this mythical fourth king of the world in Iranian tradition, who invented brick masonry, winemaking, weaving, and the division of society into four classes.

ANSWER: Jamshid

[10] Jamshid's deeds are recounted in this epic by Firdausi, which also tells of Rustam and Sohrab in its account of Iranian history.

ANSWER: the *Shah Nameh* [or *Book of Kings*]

[10] Rustam is born with the assistance of this legendary bird of the Shah Nameh, who raises the abandoned Prince Zal.

ANSWER: Simurgh

019-13-64-10211

12. In one country, this plant was first cultivated at Bura in the Taita Hills in 1893. For 10 points each:

[10] Name this plant whose Arabica type is grown in the highlands of Kenya.

ANSWER: **coffee** [or **Coffea** arabica]

[10] In 1904, coffee began to be grown near this town in Nairobi. The Mau Mau Rebellion was dominated by a group of Bantu people of this name.

ANSWER: Kikuyu

[10] In 1923, this document outlined the special status of white settlers in the Kenyan highlands. After the release of this document the Kenyan government allowed the growth of coffee in predominantly African areas of the country.

ANSWER: **Devonshire White Paper** of 1923

149-13-64-10212

- 13. The electroweak unification of Glashow, Weinberg, and Salam predicted the existence of this boson. For 10 points each:
- [10] Identify this weak boson grouped with the W<sup>+</sup> and W<sup>-</sup> bosons.

ANSWER:  $\mathbf{Z}^0$  boson

[10] These weak processes are mediated by the Z boson, which does not change the lepton or quark flavor.

ANSWER: **neutral current** weak processes

[10] The resonant cross-section for particles, including the Z boson, can be described by this distribution. It is a generalized form of the Cauchy distribution.

ANSWER: **Breit-Wigner** distribution [or **Lorentz** distribution]

- 14. This work is normally paired with another work in the same genre, which has a mazurka in its finale. For 10 points each:
- [10] Identify this work for piano and orchestra whose finale includes a krakowiak dance.

ANSWER: Frédéric <u>Chopin</u>'s <u>Piano Concerto</u> no. <u>1</u> in <u>E minor</u>, <u>Op. 11</u> [accept any uniquely identifying combination of the underlined parts and prompt on partial answer]

[10] Chopin wrote four works of this type, said to be inspired by the poetry of Adam Mickiewicz. Although largely unrelated, another work by this name was part of the three formes fixes, with the rondeau and virelai, that were very popular in 14th and 15th century France.

ANSWER: piano ballade

[10] Chopin's opus 28 is a set of 24 of these works. Twenty-four of these works are paired with fugues in Bach's *Well-Tempered Clavier*, and one of these is also the first movement of Bruch's *Violin Concerto in G minor*.

ANSWER: **prélude** [or **vorspiel**; or **praeludium**]

066-13-64-10214

- 15. This essay claims that "to talk with horror of killing rather than of murder" is "the work of the devil" and blames pacifism for muddying the distinction between killing the innocent as a means to an end and legitimate conduct of warfare. For 10 points each:
- [10] Identify this essay on the atomic bombings of Japan, written in protest of an honorary bachelor's awarded by Oxford University in 1956.

ANSWER: "Mr. Truman's Degree"

[10] This author of *Intention*, who coined the term "consequentialism" in "Modern Moral Philosophy," wrote "Mr. Truman's Degree." This philosopher also distinguished "brute" from "institutional" facts and wrote in "The First Person" that the word "I" does not refer to anything.

ANSWER: Gertrude Elizabeth Margaret Anscombe

[10] Anscombe was the principal translator and annotator of this other philosopher, and provided an introduction to his *Tractatus Logico-Philosophicus*.

ANSWER: Ludwig Wittgenstein

019-13-64-10215

- 16. This meeting was held in two phases since the Russians were unwilling to meet with the Chinese. For 10 points each:
- [10] Name this World War II meeting during which the United Nations was formulated. It took place at a building owned by Harvard University.

ANSWER: <u>Dumbarton Oaks</u> Conference [or <u>Washington Conversations on International Peace and Security Organization</u>]

[10] At this conference, the United Nations Charter was signed. The Security Council veto powers were also devised at this conference.

ANSWER: San Francisco Conference [or United Nations Conference on International Organization]

[10] This man led the San Francisco Conference. Nixon was placed in charge of a subcommittee that investigated the "Pumpkin Papers" and allegations against this man.

ANSWER: Alger Hiss

- 17. As the great Lewis Wolpert once said: "It is not birth, marriage or death, but [this process] which is truly the most important time in your life." For 10 points each:
- [10] Identify this process in which the blastula is reorganized to form the three primary germ layers.

## **ANSWER:** gastrulation

[10] These pictorial representations are used to trace the development pathway of specific parts of an embryo. Walter Vogt is particularly associated with the creation of them.

ANSWER: fate map

[10] The three germ layers formed in gastrulation are the ectoderm, this one, and the endoderm. Its name is rather appropriate since its the middle layer.

ANSWER: mesoderm

066-13-64-10217

- 18. This character reads Ernest Renan's *Life of Jesus* and Henri Murger's *The Bohemians of the Latin Quarter* before seducing the middle-aged Emily Wilkinson at Blackstable. For 10 points each:
- [10] Name this character, who works as a window dresser alongside Thorpe Athelney before securing enough money to return to school.

ANSWER: Philip **Carey** [or **Philip**]

[10] The clubfooted Philip Carey and his crazy lover Mildred Rogers appear in this author's *Of Human Bondage*.

ANSWER: William Somerset Maugham

[10] A cricket-obsessed poet named Cronshaw explains to Philip the theory of this metaphor for finding a pattern where there may be none to create the meaning of life. Maugham borrowed this phrase from the title of a Henry James story in which a book reviewer pursues Gwendolyn, who does not reveal the title secret to her second husband Drayton Deane.

ANSWER: "the figure in the carpet"

019-13-64-10218

- 19. Medea tried to have this man killed in order to preserve the inheritance rights of her son Medus. For 10 points each:
- [10] Name this man, whom Medea did her best to poison after he unexpectedly survived facing the Marathonian Bull.

**ANSWER: Theseus** 

[10] An earlier foe faced by Theseus was this king of Eleusis, who challenged all comers to a deadly wrestling match.

ANSWER: Cercyon

[10] This man killed Theseus by hurling him off a cliff in Skyros.

ANSWER: Lycomedes [or Lycurgus]

- 20. One character in this novel muses that "if a meaning of life was to show up, you'd think it would have by now," comparing it not to "something you dig for," but rather "an unopened, dewy beer can." For 10 points each:
- [10] Having sex with Cindy via a wife-swapping program and making love to his wife Janice in a bed full of gold Krugerrands are two hedonistic pursuits of the middle-aged Toyota dealership owner Harry Angstrom in what novel?

ANSWER: Rabbit is Rich

[10] The Rabbit tetralogy was penned by this American author of *The Witches of Eastwick*.

ANSWER: John Hoyer **Updike** 

[10] In a parade scene from *Rabbit at Rest*, Harry Angstrom appears as this character, symbolizing his constancy in the face of sweeping political change in the late 1980s.

ANSWER: **Uncle Sam** 

020-13-64-10220

21. One character in this novel bases his worldview on a scholar with no experience on the ground in Vietnam. For 10 points each:

[10] Name this novel in which the York Harding-loving Alden Pyle is behind car and bicycle bombings. Pyle also steals Phuong away from the narrator.

ANSWER: The Quiet American

[10] This British author wrote The Quiet American and Our Man in Havana.

ANSWER: Graham Greene

[10] York Harding and Alden Pyle use this catchphrase to refer to their vision of a traditionalist resurgence in Southeast Asia that is bound to neither Communism nor Western colonialism.

ANSWER: "Third Force"