FLopen 2020
Packet F: ♪We are the Big Chungus Bonus Preservation Society / God save exposition, context clues, and second person memes♪
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Tossups

1. **Griselda Pollock used Robert Doisneau's ("dwah-NO's") photograph** *Sidelong Glance* **as a visual metaphor for how an idea described by this term can be negated. This is the final word in the title of a Bracha L. Ettinger book that presents her theory of "matrixial trans-subjectivity." Tourists seeking authentic heritage experiences engage locals in a relation described by this word according to a book by sociologist John Urry. Shared, repressed, and (*)** interrogating types of a relation described by this term characterize the repressive experience of Black women according to a 1992 bell hooks essay titled for its "oppositional" type. Laura Mulvey's paper "Visual Pleasure and Narrative Cinema" popularized the use of this term to refer to a depictorial relation in which women are reduced to sex objects for the pleasure of men. For 10 points, give this term used in social theory to describe a prolonged look.
ANSWER: the **gaze** [accept the male **gaze**; accept female **gaze**; accept the shared, repressed, interrogation or oppositional **gaze**; accept the matrixial **gaze**; accept the tourist **gaze**]
<Social Science: Other, TH>

2. **The communal family and the spiritualist-psychic family are among this many "families" of New Religious Movements identified by J. Gordon Melton. Followers of Scientology identify this many "dynamics of existence." Emic tradition states that, following his death, the relic of the Buddha were divided into either 84,000 or this many portions. Patañjali's ("puh-TUHN-juh-lee's") Yoga Sūtras break down yogic practices into this many (*)** "limbs." Wiccans practice this many *sabbats* per year, which include Beltane and Samhain. Shemini Atzeret is celebrated this many days after the first day of Sukkot. "Right view" and "right speech" are among this many components of a Buddhist concept that is represented by the dharmachakra, which has this many spokes. For 10 points, give this number of nights of Hanukkah.
ANSWER: **eight** [or **asht**a; accept **ashtānga** yoga; accept **Eight** Dynamics of Existence; accept the **Eightfold** Path]
<Religion, TH>

3. **This word follows "Levee Low" in the title of the last album from Wynton Marsalis's 3-part cycle about jazz in New Orleans,** *Soul Gestures in Southern Blue*. **The notes (read slowly) F-G-A flat- low D end the trumpet solo on standard of this name before the tenor saxophone responds with the phrase: (read slowly) 3 low Cs-F-G-A flat- low D flat. The melody (read slowly) long F-short high C- short low D-flat, followed by a percussive grunt, begins a 1993 version of a song with this title, whose opening (*)** baritone sax solo is played by Ronnie Cuber. Benny Golson convinced pianist Bobby Timmons to develop an offhand 8-bar lick in an F minor standard with this title, which was later recorded by the Mingus Big Band. That standard titles a 1959 album whose cover shows a yellow-and-black image of the bandleader's face. For 10 points, name this sensual one-word action that titles a seminal hard bop album by Art Blakey and the Jazz Messengers.
ANSWER: **Moan**in' [accept word forms; accept *Levee Low* **Moan**]
<Other Arts: Auditory, TM>

4. **When reclining on a couch, this character smashes a jug and yells at his servant for not looking at him while setting the table, causing the servant to huddle near a statue in fear. In a dream, this character tells a man called "the philosopher" that cowardice is the most terrible vice. This character sits in an armchair for two thousand years, repeatedly saying that the moon gives him insomnia before walking on a path made of moonlight with a man he earlier persecuted. This character secretly goes to a grotto to stab a man and take his (*)** thirty tetradrachms. A former resident of a basement near Arbat burns a manuscript of a novel about this character, only to have it recovered by Woland, who tells the novel's author that "manuscripts don't burn." For 10 points, name this procurator of Judea from *The Master and Margarita*, who orders the crucifixion of Jesus Christ.
ANSWER: **Pontius** **Pilate** [accept either underlined portion; accept the **Procurator** until it is read]
<Long Fiction, LL>

5. **The one-eyed, one-legged, one-handed commander Blas de Lezo led forces in the defense of a port city during this conflict. Thomas Wentworth became a leading commander in this conflict following Lord Cathcart's death of dysentery on Dominica. George Anson ended up circumnavigating the globe during his attempts to capture galleons in this conflict. During this war, forces under Edward (*)** Vernon dismantled Fort San Jeronimo after capturing Porto Bello. Major engagements in this war include James Oglethorpe's victory at Bloody Marsh in Georgia and the failed assault on Cartagena de Indias. This conflict began after a man testified before parliament that a member of the *guarda costa* had assaulted him aboard the *Rebecca*. For 10 points, name this Anglo-Spanish conflict that began in 1739, supposedly instigated by a buccaneer removing a sailor's body part.
ANSWER: War of **Jenkin's Ear** [accept Guerra del **Asiento**; prompt on War of the Austrian Succession]
<Post-500 Euro History, TH>

6. *Two answers required.* **In *The World Republic of Letters*, a critic from one of these two countries championed a group of authors from the other country as the first "world" literary figures. An author born in one of these countries tried to become a painter in the other, where he wrote *Confessions of a Young Man* and *Esther Waters*. An author from one of these countries used an insurrection in the other for the setting of his comic-erotic novel *We Always Treat Women Too Well*. Shortly after moving from one of these countries to the other, an author published the essay (*)** "Dante… Bruno. Vico.. Joyce" and the poem "Whoroscope." A playwright born in one of these countries used the language of the other to write a play in which two men conclude they will get erections if they hang themselves. For 10 points, name these two countries, respectively the birth country of Samuel Beckett and where he wrote *Waiting for Godot*.
ANSWER: **Ireland** [or Republic of **Ireland**; or **Éire**] AND
   France [or **French** Republic; or République **française**]
   (The unmentioned authors, in order, are Pascale Casanova, George Moore, and Raymond Queneau.)
<Other Literature, TH>

7. **During a landmark one of these procedures, a man was unable to take a photo with a chest-mounted camera due to the unexpected ballooning of an item named *Berkut*. The AMS-02 detector was repaired during a series of these procedures performed in late 2019 and early 2020. Participants typically "camp out" in a chamber called *Quest* the night before undergoing one of these procedures. *Strela* cranes were used to move cargo and people around during (*)** Soviet examples of these procedures. Alexei Leonov was the first person to perform one of these procedures. The SAFER propulsion backpack replaced the Manned Maneuvering Units once used during these procedures, which have reduced the need for tethering. For 10 points, name these procedures in which astronauts move around outside of spacecraft.
ANSWER: **spacewalk**s [accept **extravehicular activity** or **EVA**; accept **moonwalk**; prompt on going into outer space by asking "in what specific manner?"]
<Other Academic, TH>

8. **A leader known for his opposition to these people kept a small dog with him at all times to scare them away and would open assembly meetings by reading a poem ending "he who worships God is a Barbarian." Opposing these people was the organizing force in the founding of the Justice Party in 1916. A subgroup of these people organized restrictions around the Mahadev complex, leading to (emphasize) *another* group to organize a liberation movement based at the (*)** Vaikom temple. Mahatma Gandhi's rival Periyar E. V. Ramasamy was best known for vociferously opposing the political and economic hegemony of these people. Thousands of dalits led by B. R. Ambedkar converted to Buddhism to escape from a system headed by these people. For 10 points name this group of Hindus who occupy the topmost position in the Indian caste system.
ANSWER: **Brahmin**s [prompt on Hindus; prompt on high caste or upper caste Hindus or similar answers]
<Other History, TH>

9. **By evading back-action effects, the cross-Kerr effect can be used to perform this process in a manner that satisfies QND requirements. In the POVM representation of this process, the positive semi-definite operators associated with it are not required to be orthogonal. Misra and Sudarshan first theorized that decay processes can be inhibited by rapidly performing this process. The orthodox theory of this process treats it as a (*)** projection of the original state onto a particular eigenstate. By showing that interactions with the environment suppress interference terms, decoherence theory explains why this process is not a problem in practice. Commonly described as the collapse of the wave function, this process finds the values of observables. For 10 points, name this process that cannot be performed simultaneously to determine a particle's position and momentum.
ANSWER: **measurement** [or **observation**; accept **wave function collapse** before "collapse"]
<Physics, JS>

10. **This actress's memoir details her mother's serious car accident after her stepfather cut a car's brakes and her visits to L.A.'s Laugh Factory Comedy Camp in lieu of traditional therapy. This comedian tells the life story of French art historian Rose Valland in an episode of *Drunk History*. A character voiced by this actress has a rich aunt named Tallulah on a show created by Lisa Hanawalt. This author of *The* (*)** *Last Black Unicorn* played a character who asserts, "you can't get no infection in your booty hole. It's a booty hole." This star of a 2017 Showtime special subtitled "She Ready! From the Hood to Hollywood!" voices Tuca on *Tuca & Bertie*. This actress's breakout role was in a film centering on the Essence Festival in New Orleans co-starring Regina Hall, Jada Pinkett Smith and Queen Latifah. For 10 points, name this star of *Girls Trip*.
ANSWER: Tiffany **Haddish** [or Tiffany Sara Cornilia **Haddish**]
<Pop Culture, MB>

Note to moderators: please read the answer line carefully before reading the question.

11. *Description acceptable.* **State-of-the-art laboratory studies of this process use continuous flow streamwise thermal gradient counters manufactured by DMT, but it was first studied by amateur scientist John Aitken using koniscopes. Charlson, Lovelock, Andreae, and Warren proposed that increased production of dimethylsulphide decreases forcing because the rate of this process increases. This process creates visible features in swirling eddies called rotors that are found underneath the crests of lee waves. This process often begins at the LCL, which can be found on a skew-T diagram at the intersection of a mixing ratio line and a (*)** dry adiabat. Hygroscopic aerosols about 0.1 micrometers in diameter serve as nuclei for this process. This process occurs when orographic lift forces air parcels to rise and cool. For 10 points, name this meteorological process that creates masses of liquid droplets.

ANSWER: **cloud formation** [accept answers indicating the **creation** or **synthesis** of **cloud**s; accept answers indicating more specific types of clouds, for example cumulus **cloud formation**; accept **droplet formation** or descriptions of **droplet**s **form**ing until "droplets" is read; accept **ice** crystal **formation** or descriptions of **ice** crystals **form**ing; prompt on condensation or nucleation by asking "what macroscale process results from atmospheric condensation/nucleation?"]
<Other Science: Earth Science, TH>

12. **It's not Ralph, but a contemporary composer with this first name adapted Blake's *Song of Innocence and Experience* into a massive choral song cycle and is known for his Joplin-esque piano rags. Another composer with this first name drew on 18th-century hymns for his *New England Triptych* and nicknamed his tenth symphony "American Muse." Another composer with this first name spent seven months trying to figure out how to set the word "gold" from a text by Osbert Sitwell while working on a vocal piece commissioned by the (*)** BBC. Paul Hindemith gave the first performance of a viola concerto by a composer with this first name after it was rejected by Lionel Tertis. This first name is shared by an American composer with the surname Schuman and a composer who wrote the oratorio *Belshazzar's Feast.* For 10 points, give the first name of the English composer with the surname Walton.

ANSWER: **William** [accept **William** Bolcom; accept **William** Schuman; accept **William** Walton]
<Classical Music, TH>

13. **The kidnapping of two members of this organization is the subject of Joseph Wambaugh's book *The Onion Field*. A head of this organization drew controversy when he suggested that, since Black people's arteries opened slower than whites, they are not "normal people." Two members of this organization killed Eula Love during a conflict over late collection of a utility bill. During Operation Hammer, this organization's (*)** CRASH special unit controversially destroyed two apartment buildings. After being attacked by members of this organization, a man famously asked "can't we all get along?" A racist member of this organization named Mark Fuhrman was a key witness during the trial of O. J. Simpson. For 10 points, a 1992 riot occured after several officers of what organization were acquitted for the beating of Rodney King?

ANSWER: **LAPD** [or the **L**os **A**ngeles **P**olice **D**epartment]
<US History, TH>

14. **Assuming this mathematical behavior and a radially symmetric spread, an invasive species's range increases linearly with time, as Skellam showed with muskrats in the New World. A density dependence factor, theta, partially names a predation model whose fundamental assumptions are: a nonlinear functional response and that this mathematical behavior is *not* accurate. This behavior is characterized by lambda in the Euler–Lotka equation, which assumes it is valid for populations with stable age distributions. After the lag phase, (*)** bacteria cultures exhibit this behavior. In the absence of predation, the prey in the Lotka–Volterra model display this behavior because they have an unlimited food supply. At low populations, logistic growth resembles this behavior. For 10 points, name this behavior modeled as the equation: population size equals a constant times e raised to the r-t.
ANSWER: **exponential growth** [accept **exponential population growth**; accept **logarithmic phase**; accept **exponential phase**; accept **geometric growth**; prompt on growth or population growth by asking "what type of growth?"] (The model in the second clue is theta-logistic predation.)
<Biology, JS>

15. **This poet used royal rhyme in a dialogue poem in which "nottebrown Ellynor" and "Juga fayre" lament their sweethearts' deaths in the Wars of the Roses. In another poem, this author described an elderly pilgrim caught in a storm who is refused entry to the Seyncte Godwynes ("SAY-nekt GOD-wines") convent before being taken in by a humble priest. This poet of "An Excellent Ballad of Charitie" wrote a satirical "Last Will and Testament" shortly before leaving his hometown of Bristol. The speaker of Wordsworth's "Resolution and Independence" calls this author "the marvelous (*)** Boy" who "walked in glory and in joy / Following his plough, along the mountain-side." This poet is the dedicatee of Keats's *Endymion*. For 10 points, name this 18th-century proto-romantic poet who forged a number of poems he attributed to the medieval priest Thomas Rowley before killing himself at age 17.
ANSWER: Thomas **Chatterton** [prompt on Thomas Rowley before "Rowley" is read by asking "who was the real life author who used that pseudonym?"]
<Poetry, TH>

16. **A governor from this country with the personal motto "I deny" was assassinated in a coffee shop by a man he cuckolded, an event that set into motion the overthrow of a president. Excessive flogging of a sailor from this country led to the Revolt of the Lash. This country's "saddling-up" economic bubble burst under its second president, who was nicknamed the "Iron Marshal." In this country's sham 1910 election, the Civilian Campaign led by (*)** Ruy Barbosa lost by a wide margin to a nephew of this country's first president. This country was the third in the world to construct dreadnoughts, and it sent the DNOG naval detachment to participate in World War I. *Tenentes* led by future PCB leader Luis Carlos Prestes rebelled several times against this country's corrupt "coffee with milk" politics. For 10 points, name this country where the Old Republic was founded following the deposition of Pedro II.
ANSWER: **Brazil** [or Federative Republic of **Brazil**; or República Federativa do **Brasil**] (The first clue refers to the assassination of João Pessoa Cavalcanti de Albuquerque.)
<World History, KN>

17. **The aesthetic theories of Albertus Magnus may have inspired a painting of one of these places in which a small demon gazes up at a seated St. George near a hexagonal table while St. Barbara draws water from a well; that painting is attributed to the Upper Rhenish Master. Two small angels crown a red robed Mary in one of these places in a painting by Martin Schongauer. One of these places is shown in the left third of Fra Angelico's (*)** Cortona Altarpiece, which shows an Annunciation. The virginity of Mary is allegorized in a genre of late medieval and early Renaissance paintings named for "walled" types of these places. The left panel of a painting named for one of these places features a pale giraffe behind an ornate pink fountain and a "tree man" in its hellish right panel. For 10 points, name this type of place where sinners frolic in a Bosch painting depicting "earthly delights."
ANSWER: **garden** [accept *Paradies**gärtlein*** or the *Little **Garden** of Paradise*; accept ***Garden** of Earthly Delights;* accept walled **garden**; accept **rose** garden; accept ***hortus*** conclusus; accept the **Garden** of Eden; prompt on court**yard**]
<Painting/Sculpture, TH>

18. **Sticky rice mixed with this ingredient is coated in peanut powder and served on a stick in a popular Taiwanese street food. This ingredient is whipped and mixed with pilsner, flour, and eggs to make a namesake type of pancake enjoyed in Scandinavia. This base is flavored with cognac and lemon to make the Rouennaise sauce served with *Canard* ("cah-NAR") *à la presse*. A mixture of vinegar and this ingredient is the signature ingredient in the Portuguese dish (*)** cabidela. The Filipino dinuguan and the Polish czernina are soups that use this ingredient as a base. A class of foods named for this ingredient includes the Latin American *morcilla* and the European *kaszanka*. Grains, fats and spices are mixed with this liquid to make black pudding. For 10 points, name this animal-derived liquid used to make a namesake type of sausage when it is allowed to coagulate.
ANSWER: animal **blood** [accept duck, cow, chicken, pork or the **blood** of any specific animal; accept **blood** sausage; prompt on sausage by asking "made from what substance?"]
<Other Academic, TH>

19. **In their book on this thinker, Pasnau and Shields give the example of a snake digesting a gerbil to demonstrate how this thinker believed immanent rather than transeunt causation was a hallmark of life. Haldane and Lee coined the term "epigenetic primordia" to explain this thinker's position on human ensoulment. This thinker wrote that the senses are "cognizant only of singulars" while the intellect is "cognizant of universals" in a treatise likely meant to aid (*)** missionaries. This hylomorphic dualist claimed that the soul is simply "the form of the body" in a commentary on Aristotle's *De anima*. The first of a set of statements made by this philosopher notes that all movement must be caused, necessitating an "unmoved mover." For 10 points, name this philosopher who presented a theory of mind along with five proofs of God's existence in *Summa Theologica*.
ANSWER: St. Thomas **Aquinas** [accept ***Doctor Angeicus*** or ***Doctor Communis***]
<Philosophy, TH>

20. **The "profound silence" and "lonely light" experienced by a character in this location echoes the "paradoxical beauty of nature" described in its author's final work. While discussing an event in this location, an itinerant compares the "evanescence" of life to "the morning dew or a flash of lightning." A sudden gust of wind reveals a woman's inspiring resemblance to a "Bodhisattva" prior to an event in this location, which ironically leads that same woman to consider herself "forsaken [...] by Kannon" while (*)** confessing in a temple. The victim of a crime in this location claims he committed suicide while being contacted through a spiritual medium. A woodcutter provides the first of seven conflicting narratives concerning a samurai's murder in, for 10 points, what title location of a short story by Ryūnosuke Akutagawa?
ANSWER: a bamboo **grove** [accept "In a **Grove**"; accept "**Yaba** no Naka"] (The work referenced in the first line is Akutagawa's suicide note, "A Note to a Certain Old Friend.")
<Short Fiction, TM>

21. **I. M. Linforth denied the historicity of a cultural institution centered on this individual in a 1941 book titled *The Arts of [This Figure]*. This figure possesses "many qualities of the snark" and "one important resemblance to the Cheshire Cat," according to a 1935 religious history by W. K. C. Guthrie. Ibycus first described this figure as *Onomakluton*, or "famous-of-name," possibly punning on the name of Onomacritus, who, with Cercops, wrote (*)** 87 hexametric works under this figure's name. Michael Schmidt's *The First Poets* opens by discussing this figure, whose *katábasis* inspired a set of ancient mysteries whose cosmogony centered on Zagreus. Plato's *Symposium* explains why the gods favored Alcestis over this figure, as he "lacked the spirit to die for the sake of love" after his bride was bitten by a snake. For 10 points, name this Thracian poet who tried to leave Hades with Eurydice.
ANSWER: **Orpheus** [accept **Orphism**; accept the **Orphic** religion, the **Orphic** tradition, or the **Orphic** mysteries]
<Mythology, TM>

22. **To increase sensitivity of measurements on this type of sample, energy splittings are designed to be equal in Hartmann–Hahn cross-polarization. Recoupling this type of sample is hindered by truncation, in which non-commuting interactions cause the C, D, E, and F terms of the dipolar alphabet to vanish. The random distribution of theta in paramagnetic samples of this type shows up as a Pake doublet, which is used to find bond lengths. A change in the Larmor frequency proportional to the Pauli susceptibility called the Knight shift occurs in samples of this type. To lessen (*)** dipolar coupling and chemical shielding interactions, samples in this phase are packed into a rotor placed at 54.74 degrees to the magnetic field. For 10 points, samples in what phase of matter are spun at the "magic angle" to reduce anisotropies not present when NMR is run on solutions?
ANSWER: **solid** samples [accept **solid**-state nuclear magnetic resonance or **solid**-state NMR; accept **metal** samples or **metallic** samples; accept **powder** samples; accept **crystal** samples or **crystalline** samples]
<Chemistry, JS>

Bonuses

1. The most skilled of these performers were sent to institutions to be trained by Richinarii and Ursari. For 10 points each:
[m] Name these non-human performers that were accompanied by *skomorokhi* in town squares. These performers were trained to associate certain musical keys with hot coals and were eventually outlawed in the late 19th century.
ANSWER: **tame bear** [or **dancing bear** or ***tantsuyushchiy medved***; prompt on bears by asking "what activity were those bears known for?"]
[e] The Ursari bear trainings were usually people of this ethnicity that also worked as Old World monkey handlers in Bulgaria. These largely nomadic people were the target of the Porajmos during World War II.
ANSWER: **Roma**ni People [or **Roma**ny]
[h] Because trainers were so concerned that bears would not be able to recognize when *skomorokhi* played pizzicato on a balalaika, they instead used these instruments from the zither family. These Novgorodian instruments came in clavichord and Krylovidnye varieties.
ANSWER: **gusli**
<Post-500 European History, ZF>

2. Thomas Hardy once quipped that "America has two great attractions: the skyscrapers and the poetry of [this author]." For 10 points each:
[e] Name this poet who was one of many female lyricists to be discredited by critics in the mid-20th century. This poet's collection *A Few Figs From Thistles* includes a poem beginning "My candle burns at both ends."
ANSWER: Edna St. Vincent **Millay**
[m] The line "Time does not bring relief; you all have lied" opens a sonnet about heartbreak in Millay's collection titled for this long poem. This poem, an account of being buried alive in the wide expanse of the universe, opens with the lines "All I could see from where I stood / Was three long mountains and wood."
ANSWER: "**Renascence**"
[h] This word is the last word of Millay's poem "The Penitent." The poem's speaker resolves to be troubled no more by her "Little Sorrow" and "Little Sin" before a line ending with this word follows "But if I can't be sorry, why".
ANSWER: "I might as well be **glad**!"
<Poetry, JS>

3. This word proceeds "core" in a portmanteau term used to described hardcore and metal bands whose lyrics explore Islamic themes. For 10 points each:
[h] Give this Arabic term usually translated as "piety" or "fear of God." Individuals who possess this quality and thus are conscious of God are termed *muttaqin*.
ANSWER: ***taqwa*** [accept **taqwacore**]
[e] Another Islam-inspired rock subgenre is named for this mystical movement, exemplified by the Pakistani band Junoon. Mevlevi Dervishes from this tradition are known for their whirling dance.
ANSWER: **Sufi**sm [accept **Sufi** rock]
[m] This Sufi practice, which can be translated as "remembrance" or "utterance," can be accompanied by music and dance. Individuals engaging in this practice typically recite short devotional passages and count on prayer beads.
ANSWER: ***dhikr***
<Religion, TH>

4. While sitting next to its composer at a performance in his honor, Leo Tolstoy burst into tears while listening to this movement. For 10 points each:
[h] Name this B-flat major movement of a chamber piece later arranged by its composer for cello and string orchestra. Its melody derives from a folk song its composer heard from a carpenter while visiting his sister in Kamenka. You may give either the tempo marking (pause) *or* the composer, piece and movement number.
ANSWER: *__andante cantabile__* [accept the __second__ movement of Pytor __Tchaikovsky__'s __string quartet__ No. __1__; accept the __second__ movement of __Tchaikovsky__'s __Opus. 11__]
[e] Another famous Tchaikovsky string piece is his C major work in this genre for string orchestra. Mozart's *Eine Kleine Nachtmusik* is a piece in this genre of typically light music written in honor of a person or thing.
ANSWER: __serenade__ [accept __serenata__; accept string __serenade__]
[m] A lesser known Tchaikovsky chamber piece is his *Adagio molto* in E-flat, scored for string quartet plus one of these instruments. Mozart wrote a double concerto for flute and this larger instrument.
ANSWER: concert __harp__
<Classical Music, TH>

5. Answer the following about drawing rays to construct the image produced by spherical lenses, for 10 points each.
[m] Traditionally, this many principal rays are drawn from the highest point on the object to the highest point on the image, although one of them is not technically needed to locate the image.
ANSWER: __three__
[e] The ray through this point denoted F must be parallel to the optical axis after being refracted.
ANSWER: __focal__ point [or principle __focus__]
[h] The graphically determined image size and position can be verified using the Gaussian formula for a single spherical surface separating two media with indexes of refraction n and n-prime. The formula states that n over the object distance plus n-prime over the image distance equals this expression of n, n-prime, and the radius of curvature, r. You have 10 seconds.
ANSWER: *__n minus n-prime over r__* [or *__n divided by r minus n-prime divided by r__*; accept equivalents to the following two expressions: *__(n – n-prime) / r__* or *__n/r – n-prime/r__*]
<Physics, JS>

6. Broadly categorized into step-in, strap-on, or hybrid types, these items can be used either in the toe-centered "German technique" or the flat-footed "French method." For 10 points each:
[m] Name these ice climbing accessories, which increase traction by attaching a number of steel or aluminum spikes to the bottom and sides climbing boots.
ANSWER: __crampon__s
[e] High altitude climbing often requires bottles of this substance to be used in conjunction with a regulator. Nearly all Mt. Everest climbers carry canisters of this substance to circumvent the natural restrictions of the "Death Zone."
ANSWER: bottled __oxygen__ [accept __O2__]
[h] After being placed in a rock crack, these fall prevention devices function by expanding when a downward force is applied, creating massive friction. With hexes and nuts, these devices have largely replaced the hammer-driven piton since the 1970s' "clean climbing" movement.
ANSWER: spring-loaded __cam__ming devices [accept __cam__s; accept __SLCD__s; accept __Friend__s]
<Other Academic, TM>

7. The study of reactions at equilibrium is an important application of thermodynamics. For 10 points each:
[m] A fundamental relation at chemical equilibrium says that, since the total change in Gibbs free energy is zero, the change in the standard molar reaction Gibbs free energy equals this expression or its negative. Give your answers in terms of the ideal gas constant, R, the temperature T, and the equilibrium constant, K-sub-eq.
ANSWER: **RT ln K-sub-eq** [accept **R times T times** the natural **log of K-sub-eq**]
[h] At equilibrium, Gibbs free energy must be at a minimum with respect to this quantity. The number of moles of a reactant is equal to its initial number of moles minus its stoichiometric coefficient times this quantity.
ANSWER: **extent of reaction** [prompt on xi]
[e] One manner of expressing this principle is to write K-sub-eq in terms of extent of reaction and pressure, and note that a pressure change will change the equilibrium extent of reaction. This principle relates changes in external conditions to changes in the equilibrium position.
ANSWER: Le **Châtelier**'s principle
<Chemistry, JS>

8. An essay titled for this concept discusses the notion of the "absolute fake," in which imitations are made as improvement rather than imitations of the real world. For 10 points each:
[m] Name this concept discussed in an Umberto Eco book titled for *Travels in [it]*. Eco cites Disneyland as the foremost example of this concept for its emphasis on recreations and themed environments.
ANSWER: **hyperreality** [accept the **hyperreal**; accept *Travels in **Hyperreality***]
[e] This French postmodernist explored the concept of hyperreality in his book *Simulacra and Simulation*.
ANSWER: Jean **Baudrillard** ("boh-dree-YARR")
[h] This philosopher of technology discussed the relationship between hyperreality and hyperactivity in his book *Crossing the Postmodern Divide*. This thinker drew on Heidegger's notion of *Gestell* in developing the "device paradigm" in the book *Technology and the Character of Contemporary Life*.
ANSWER: Albert **Borgmann**
<Philosophy, AD>

9. In this play, the police accuse a man of murdering his cousin to gain control of her business after finding the cousin's clothes while investigating sobbing noises. For 10 points each:
[m] Name this play in which the Gods give Shen Te money to open a tobacco shop, which she runs with help from her invented cousin Shui Ta.
ANSWER: *The **Good Person of Szechwan*** [accept *The **Good Man of Szechwan*** or *The **Good Woman of Szechwan***; accept *Der **gute Mensch von Sezuan***]
[e] *The Good Person of Szechwan* was written by Margarete Steffin, Ruth Berlau, and this author of *Mother Courage and Her Children*.
ANSWER: Bertolt **Brecht** [or Eugen Berthold Friedrich **Brecht**]
[h] This theater critic and friend of Brecht was the first to translate *The Good Person of Szechwan*, and many other Brecht plays, into English. This recently deceased centenarian drew on Brecht's experience before HUAC in his play *Are You Now Or Have You Ever Been*.
ANSWER: Eric **Bentley** [or Eric Russell **Bentley**]
<Other Literature, GP>

10. Raphael Pumpelly excavated the two mounds that make up the site that names this civilization. For 10 points each:

[h] Name this Chalcolithic civilization that began around 4000 BCE in southern Turkmenistan. A stamp seal uncovered by Fredrik Hiebert may indicate that this civilization was one of the first to independently develop writing.

ANSWER: **Anau** civilization [accept **Anau** I, II, II or IV]

[e] The Anau stamp seal features symbols remarkably similar to the small seal script used by this Chinese dynasty thousands of years later. The first emperor of this dynasty had the Terracotta Army built for his tomb.

ANSWER: **Qin** dynasty [accept **Ch'in** dynasty]

[m] Skeletons of these animals in tombs at the Anau II ("two") site may indicate that they were first domesticated by the Anau culture. One of the two main species of these animals is named for a region of Central Asia north of the Hindu Kush that was the furthest east of the Hellenized kingdoms.

ANSWER: **camel**s [accept Bactrian **camel**s]

<Other History, TH>

11. The British Museum holds a group of three of these artworks from Vere, Jamaica made from guayacan hardwood. For 10 points each:

[h] Name this type of sacred figurine of ancestors or deities created by the Taino and Arawak people of the Caribbean. An example of one of these carvings held by the Met shows a spirit from the *cohoba* ceremony balancing on its head.

ANSWER: **zemi** figurines [or **zemi** carvings; accept **zemi** choba stand; accept Vere **Zemi** Figures]

[e] Another notable Taino artwork is a curved one of these pieces of furniture formed from the back of a man on all fours. A golden one of these objects served as the throne of the Ashanti kings.

ANSWER: **seat** [accept **chair**; accept **stool**; accept the Golden **Stool**; accept Taino Ritual **Seat**]

[m] The Vere Zemi figures are primarily made of wood inlaid with these objects. These objects were carved into elaborate corbets worn by people of the Mississippian and Hopewell cultures, while the people of the Pacific Northwest made dentalium jewelry from teeth, tusks, and these objects.

ANSWER: sea**shell**s [accept more specific answers like scallop **shells** or mollusk **shells**; accept dentalium **shells**; accept tooth **shell**s or tusk **shell**s]

<Painting/Sculpture, TH>

12. The short story collection *Monkfish Moon* and the novel *Reef* both take place during this conflict. For 10 points each:

[h] Name this conflict that provides the setting of the 2010 novel *Chinaman*, in which an alcoholic sportswriter attempts to track down a missing cricket superstar during it.

ANSWER: **Sri Lankan Civil** War [or **Eelam** War; accept **Sinhalese-Tamil** conflict or war] (*Chinaman* is by Shehan Karunatilaka. *Reef* and *Monkfish Moon* are by Romesh Gunesekera.)

[e] The Sri Lankan Civil War provides the backdrop to Michael Ondaatje's ("awn-DAH-chee's") novel *Anil's Ghost*. Ondaatje also wrote this Man Booker-winning novel in which a burn victim recovers in an Italian villa during World War II.

ANSWER: The ***English Patient***

[m] Ondaatje's poetry is collected in a volume named for a "peeler" of this spice. Another Sri Lankan-Canadian author, Shyam Selvadurai, used 1920s Colombo as the setting of his novel titled for "gardens" of this spice.

ANSWER: **cinnamon** [accept The ***Cinnamon*** Peeler; accept ***Cinnamon*** Gardens]

<Long Fiction, TH>

13. The ensembles that accompany this performing art are divided into *wenchang* and *wuchang*, or the civic instrument ensemble and the military instrument ensemble. For 10 points each:
[e] Name this type of East Asian performing art whose masterpieces include *Seven Little Fortunes* and *The Hegemon-King Bids His Concubine Farewell*. This performing art combines acting, singing and dancing, and like an analogous Western genre, features arias.
ANSWER: **Chinese opera** [or **Peking opera**; or **Beijing opera**; or **Yue opera**; or **Cantonese opera**; or **xiqu**; or **jingju**; prompt on opera]
[m] The *wuchang* percussion ensemble used in Chinese opera uses the large *daluo* and the small *xiaoluo*, types of these instruments that produce falling and rising pitches respectively. Examples of these instruments used in gamelan music generally hang in a frame.
ANSWER: **gong**s [accept hanging or suspended **gong**; accept **tam-tam**s; accept bossed **gong**s]
[h] The melodic *wenchang* ensemble used in Chinese opera features this bowed two-stringed instrument. This spike fiddle was the primary instrument of composer Liu Tianhua.
ANSWER: *erhu* ("AR-hoo") [prompt on Southern fiddle; prompt on Chinese violin or Chinese fiddle]
<Other Arts: Auditory, LL>

14. The bureau that organized these meetings published the journals *The Call* and *Lotus*. For 10 points each:
[h] Name this series of conferences held from 1958 to 1979, the first of which took place in Tashkent. These conferences were nominally about literary exchange between two continents, but generally had an anti-imperialist political slant.
ANSWER: **Afro-Asian Writers**' Conferences
[e] The Afro-Asian Writers' Conferences were inspired by the Bandung Conference, where the Non-Aligned Movement was established. The Non-Aligned Movement was led by Josip Broz Tito and this first prime minister of an independent India.
ANSWER: Jawaharlal **Nehru**
[m] While speaking at the first Afro-Asian Writers' Conference, this American urged African leaders not to buy goods from the West. This historian wrote the monumental study *Black Reconstruction in America*.
ANSWER: W. E. B. **Du Bois** [or William Edward Burghardt **Du Bois**]
<Other History, TH>

15. Sylow's first theorem is the strongest partial converse to this theorem. For 10 points each:
[m] Name this theorem that states that for a group *G*, the order of any subgroup of *G* divides the order of *G*.
ANSWER: **Lagrange**'s theorem
[e] Another partial converse to Lagrange's theorem is Cauchy's theorem, which asserts the existence of a cyclic subgroup of G for each divisor of the order of G that has this property. Euclid proved that there are infinitely many numbers with this property.
ANSWER: **prime** [or **prime** numbers]
[h] *Two answers required.* For a group *G* that acts on a set *S*, Lagrange's theorem can be invoked to prove that the size of this set is equal to the index of this other set in *G*. For an element *x* of *S*, one of these sets is the subset of *S* obtained by the action of *G* on *x*, while the other set is the subset of *G* that leaves *x* fixed under the group action.
ANSWER: **orbit** [accept **orb** of x; accept **O-sub-G** of x] AND
        stabilizer [accept **stab** of x]
<Other Science: Mathematics, LL>

16. An affordable loans program established in 1959 holds the Department of Housing and Urban Development responsible for twenty billion dollars in mortgages for these facilities. For 10 points each:
[h] Name these facilities, some of which are certified by the Green House Project. The state governments of Illinois and Missouri had to take over control of some facilities run by Rosewood after that company went bankrupt.
ANSWER: **nursing home**s [or **assisted living** facilities; or **old-people's home**s; or **skilled nursing** facilities; or **care home**s; or **convalescent home**s; or equivalents; reject "hospitals" or "hospices"]
[e] NIMBYs in New York City blocked a plan to turn a nursing home named for members of this religious faith into a model elderly community. Orthodox members of this religious community were particularly hard hit by an early COVID-19 outbreak in Rockland County, New York.
ANSWER: **Judaism** [accept New **Jew**ish Home; accept **Jew**ish people or Orthodox **Jew**s]
[m] Even before the COVID-19 pandemic, US nursing homes have been a hotbed of disease outbreaks. For instance, eight residents of a nursing home in New Mexico died from an outbreak of this antibiotic-resistant and spore-forming bacterium, sometimes treated with fecal microbiota transplants.
ANSWER: **C**lostridium **diff**icile
<Current Events, MB>

17. Answer the following about pattern-recognition receptors, or PRRs, which facilitate an immune response by recognizing conserved structural motifs, for 10 points each.
[e] PRRs promote this immune response by binding to damage-associated molecular patterns. Mast cells release histamine in this immune response that results in redness, heat, swelling, and pain near the wound.
ANSWER: **inflammation**
[m] The TIR domain of these transmembrane PRRs binds to adaptor proteins such as MyD88 and TRIF. Humans possess ten of these receptors that are similar to a receptor that binds to Spätzle ("sh'PETZ-luh") in *Drosophila*.
ANSWER: **TLR**s [or **Toll-like receptor**s]
[h] C-reactive protein and this other soluble PRR promote opsonization. C1q has a similar structure to this protein, which forms an active complex with MASP-1 and MASP-2 to activate C4 and C2.
ANSWER: **MBL** [or **mannose-binding lectin**; accept **mannan-binding lectin**; accept **mannan-binding protein** or **MBP**]
<Biology, JS>

18. An Eavan Boland poem about a person doing this action opens "Flesh is heretic. / My body is a witch. / I am burning it." For 10 points each:
[e] Name this activity remarkably done for months by an Irish girl in Emma Donoghue's novel *The Wonder*. In a Franz Kafka story, an "artist" who performs this action in a cage is eventually replaced by a leopard.
ANSWER: **not eating** [accept going **hungry**; accept **starving** themself; accept **refusing food**; accept being **anorexic** or having **anorexia** nervosa; accept having an **eating disorder**; accept **fast**ing]
[m] This author's memoir *Hunger* documents her complex relationship with periods of anorexia and overeating, as well as her rape at age 12. This author of *Bad Feminist* currently hosts a book club for Vice News.
ANSWER: Roxane **Gay**
[h] This author detailed how increased power for women corresponded with a sharp rise in eating disorders as a result of unrealistic beauty standards in a 1991 book. Her other books of feminist thought include *Promiscuities* and *Vagina: A New Biography*.
ANSWER: Naomi **Wolf** (The unnamed book is *The Beauty Myth*.)
<Other Literature, TH>

19. The animal that sometimes names this phenomenon was borrowed from a passage from Dostoyevsky's *Winter Notes on Summer Impressions* that gives a folk psychological explanation of it. For 10 points each:

[h] Name this cognitive phenomenon, in which the conscious suppression of certain thoughts make them more likely to be thought about. It was first formally described in a 1987 Daniel Wegner experiment that asked people not to think about a certain animal.

ANSWER: **ironic process** theory [accept **ironic rebound**; accept the **white bear** phenomenon or problem; accept attentional **white bear** phenomenon; prompt on AWB]

[e] Ironic rebound can plague people with this disorder who attempt to use methods of thought suppression. This anxiety disorder is characterized by repetitive, intrusive thoughts paired with unavoidable related tasks or rituals.

ANSWER: **obsessive-compulsive** disorder [accept **OCD**]

[m] A 1994 behaviorist study of thought suppression found that subjects asked not to think about these concepts wrote descriptions of skinheads that were less influenced by them. An experiment by Steele and Aronson found that awareness of these concepts affected students' performance on the verbal portion of the GRE.

ANSWER: **stereotype**s [accept **stereotype** threat]

<Social Science: Psychology, TH>

20. After his girlfriend May breaks up with him on April Fool's Day, a character in this film buys a can of pineapples with an expiration date of May 1 every day for the next month. For 10 points each:

[m] Name this 1994 film featuring two consecutive, loosely connected stories revolving around the love lives of two unnamed policemen.

ANSWER: *Chungking Express* [or *Chóngqìng sēnlín* or *Chungking Forest*]

[e] *Chungking Express* is a film by this Hong Kong-based director, who also made *Happy Together* and *In the Mood for Love*.

ANSWER: **Wong** Kar-wai

[h] *In the Mood for Love* is part of an informal tetralogy of Wong Kar-wai films, along with the upcoming *Blossoms*, *2046* and *Day of Being Wild*. (pause) *Days of Being Wild* is set in Hong Kong and this non-China country, also the home of a contemporary slow cinema director who made a four-hour-long adaptation of *Crime and Punishment* in 2013.

ANSWER: **Philippines** [or Republic of the **Philippines**; or Republika ng **Pilipinas**] (The unnamed film is *Norte: The End of History* by Lav Díaz.)

<Other Arts: Film, WG>

21. Yellow Tail Wine and Cirque du Soleil are offered as examples of businesses that embraced this strategy in a 2004 book. For 10 points each:
[h] Name this marketing strategy laid out in a namesake book by W. Chan Kim and Renée Mauborgne ("MAH-born"). This theory asserts that businesses should seek to market their products in unexplored market positions with the explicit goal of avoiding all competition by creating unique products at lower prices.
ANSWER: **Blue Ocean** strategy
[m] Blue Ocean strategy seeks to crosscut this typical marketing process of dividing customers into subgroups based on demographics. This process is followed by targeting and positioning in a common three-step marketing procedure.
ANSWER: market **segmentation** [accept dividing the market into **segment**s; prompt on STP marketing]
[e] Positioning of products in the minds of consumers is commonly done through this type of media. Edward Bernays is largely responsible for introducing psychological ideas to firms producing this type of media based on Madison Avenue.
ANSWER: **advertising** [accept **advertisement**s; accept **ad**s or **advert**s]
<Social Science: Other, TH>

22. A poster drawing awareness to this disease displayed a pink triangle on a black background above the phrase "SILENCE = DEATH." For 10 points each:
[e] Name this disease. ACT UP organized "die-ins" in response to government inaction on this disease, the subject of the NAMES project, a quilt devoted to its victims.
ANSWER: **HIV**/**AIDS** [accept either underlined part; accept either underlined part of **Human immunodeficiency virus infection** and **acquired immune deficiency syndrome**]
[m] This activist criticized New York City's response to the AIDS crisis in the essay "1,112 and Counting." This activist's autobiographical play *The Normal Heart* fictionalized the founding of an HIV advocacy group, drawing on his experience co-founding ACT UP.
ANSWER: Larry **Kramer** [or Laurence David **Kramer**]
[h] During a 1989 ACT UP die-in inside St. Patrick's Cathedral, Michael Petrelis pleaded "Stop killing us" to this New York archbishop, who earlier angered activists by refusing to comply with an executive order banning discrimination for sexual orientation.
ANSWER: Archbishop John Joseph **O'Connor**
<US History, GP>