

## CALISTO 2

Head-edited by Justine French. Edited by Dylan Bowman, Robert Condrón, Nicholas Dai, Arthur Delot-Vilain, Tasis Gemmill-Nexon, Alistair Gray, Jeffrey Ma, Govind Prabhakar, Shahar Schwartz, William Orr, Rohan Venkateswaran, and Eric Yin. Written by the editors and Yusuf Amanullah, Joy An, Ethan Ashbrook, Vikshar Athreya, Louis Li, Richard Lin, Joel Miles, Alex Moon, Madhumita Narayan, Arjun Panickssery, Nathan Sheffield, Ned Tagtmeier, and Alison Yau.

### Packet 14

1. In his translation of a poem from this country, William Aggeler added “-ish” to an adjective appearing in a final line which also includes an exhortation varying translated as “fellow,” “likeness,” and “twin.” An object that narrates a poem from this country describes itself as “going down impassive Rivers.” A poem from this country describes an emotion who “smokes his (\*) hookah pipe” and is addressed to a “hypocrite reader.” A poet from this home country of the author of “The Drunken Boat” included “The Swan” and “Spleen” in *The Flowers of Evil*. For 10 points, name this home country of the “decadent” Symbolist poets Arthur Rimbaud (“ram-BOW”) and Charles Baudelaire.

ANSWER: **France** [or **French Republic** or *République française*; accept Kingdom of **France** or **French Second Republic** or Second **French Empire** or **French Third Republic**]

<Poetry — Tagtmeier> [Ed. Condrón]

1. The French government recalled its ambassadors to the United States and this country in response to a 2021 nuclear submarine deal which replaced an existing deal with France. For 10 points each:

[M] Name this country. Joe Biden and this country’s prime minister, Scott Morrison, announced that the U.S. would sell nuclear submarines to this country.

ANSWER: **Australia** [or Commonwealth of **Australia**]

[E] This near neighbor of Australia won’t allow its nuclear submarines into its territorial waters, in keeping with its “Nuclear Free Zone” policy. The *Rainbow Warrior* was sunk by French agents in this country’s city of Auckland.

ANSWER: **New Zealand** [or **Aotearoa**]

[H] The United States, New Zealand, and Australia are three of the countries in this intelligence alliance of English-speaking countries. This intelligence alliance uses the Stone Ghost network to share information.

ANSWER: **Five Eyes** [or **FVEY**]

<Current Events — Condrón> [Edited]

2. The figures on the right-hand panel of the Wilton Diptych wear exclusively garments of this color. The dye used for this color in the *Unicorn Tapestries* was made from the plant woad. In the middle ages, a pigment of this color was so expensive that it was typically reserved for depictions of the Virgin Mary. That pigment of this color is prefixed “ultra” and was made from a stone mined in Afghanistan. (\*) Prussia nicknames a synthetic pigment of this color often used in construction for technical drawings. The headscarf of Vermeer’s *Girl with a Pearl Earring* was painted with a pigment of this color made from lapis lazuli. For 10 points, name this color of typical sapphires.

ANSWER: **blue**

<Misc. Art — French> [Edited]

2. This ethnic group's holy books are generally considered to be forgeries from the 1910s written in response to Western interest in their religion. For 10 points each:

[H] Name this Iraqi ethno-religious group persecuted by ISIS for being “devil worshippers” due to their veneration of the Peacock God Melek Taus.

ANSWER: **Yazidi** [or **Ezidis**; or **Yezidis**; prompt on **Kurds**]

[M] Yazidis have two main religious texts, one which describes the sayings of Melek Taus. That text shares its name with this Biblical book by “John of Patmos” that opens with letters to seven churches and features events such as the opening of seven seals.

ANSWER: Book of **Revelation** [do NOT accept or prompt on “Revelations”]

[E] The other Yazidi holy book, the Black Book, describes the beliefs of the Yazidis, such as how they are descended from this first man, but not his wife, Eve.

ANSWER: **Adam**

<Religion — Dai> [Edited]

3. **According to this Quran, this figure used the transience of the stars, moon, and sun in the sky to argue for worshipping God. In both the Quran and Jewish exegesis, this figure defies his father's idol worship, leading Nimrod to cast him in a fire. In the Book of Genesis, this person lies to both the Pharaoh and Abimelech about the identity of his (\*) first wife in order to protect her, claiming that she is his sister.** Muslims believe that this person's son Ishmael was actually the one chosen for sacrifice in the traditional biblical narrative of the binding of Isaac. For 10 points, name this religious patriarch who names a grouping of monotheistic religions including Judaism and Islam.

ANSWER: **Abraham** [or **Ibrahim**]

<Mythology — Amanullah> [Edited]

3. *Naumachiae* were events that featured these things. For 10 points each:

[M] Name these things that made up the Classis Misenensis and Classis Ravennas in ancient Rome. The Romans equipped many of these things with a *corvus*.

ANSWER: Roman **ships** [accept **hexaremes** or **quinquiremes** or **quadriremes** or **triremes** or **liburnians**; accept **naves**]

[E] *Naumachiae* were naval battles that were sometimes held in amphitheatres that typically held fights between these people. The *retiarius* and *murmillio* were types of these people who fought in the Colosseum.

ANSWER: **gladiators** [prompt on **slaves**]

[H] Before the construction of the Colosseum, this emperor and husband of Agrippina the Younger held a massive *naumachia* on the Fucine Lake. This emperor's other maritime spectacles included fighting a killer whale in the harbor of Ostia.

ANSWER: **Claudius** [or Tiberius **Claudius** Caesar Augustus Germanicus]

<European History — Prabhakar> [Edited]

4. **A type of upwelling named for this location occurs where easterly winds cause surface water divergence. Air rises near this location as part of atmospheric Hadley cells, forming the ITCZ, also called the doldrums. The widest part of the reference ellipsoid is found at this location. Trade winds (\*) converge on this location as they blow from east to west. The Sun is directly overhead at this location on equinoxes. Since this line is a great circle, it is the latitude with the greatest distance from Earth's center.** For 10 points, name this line that encircles the Earth at zero degrees latitude.

ANSWER: the **equator** [accept **equatorial** upwelling; accept **zero degrees latitude** or **0° North** or **0° South** before “zero degrees” is read; prompt on **zero degrees** until read] (ITCZ stands for intertropical convergence zone)

<Earth, Ocean, and Atmospheric Sciences — Yin> [Edited]

4. One of this author's characters takes her name from the island where she finds mystical "spirit water." For 10 points each:

[M] Name this postmodern Japanese author. In a novel by this author, Toru Okada contacts his missing wife Kumiko after the psychic sisters Malta and Creta Kano show him the link between reality and dreams.

ANSWER: Haruki **Murakami** [or **Murakami** Haruki]

[H] Toru originally meets Malta Kano to help him perform this action in *The Wind-Up Bird Chronicle*. In Murakami's other novel *Kafka on the Shore*, Nakata makes money by using his supernatural abilities to perform this action.

ANSWER: **finding** lost **cats** [accept anything that indicates **searching** for **cats**; prompt on answers about searching for missing pets or animals by asking "what type of animal?"]

[E] Tengo reads a book about a young man getting lost in a town of cats in Murakami's novel *1Q84*, which takes its title from this British author's dystopian novel *1984*.

ANSWER: George **Orwell** [or Eric Arthur **Blair**]

<Long Fiction — Sheffield> [Edited]

5. **A painted silk banner depicting Lady Dai and her attendants was discovered in one of these structures called Mawangdui. A keyhole-shaped type of these structures lends its name to the Kofun period of ancient Japan. Central Asia is home to many of these structures called kurgans, which are a type of tumulus. The high levels of (\*) mercury detected around one of these structures give credence to Sima Qian's ("shee-ma chi-AN") claim that it once contained rivers of mercury. One of these structures in Xi'an ("shi-AN") dedicated to Qin Shihuang ("chin shee-HWANG") contains an army of terracotta warriors. For 10 points, name these structures in which people are buried.**

ANSWER: **tombs** [or **mausoleums** or **graves** or burial **mounds** or **ling**; accept **tumulus** or **tumuli** before "tumulus" is read; accept **kurgan** before "kurgan" is read; accept **necropolis**]

<World History — French> [Edited]

5. Answer the following about the chemistry of cleaning products, for 10 points each.

[E] Soaps and detergents are surfactants, which are substances that decrease this force. This force arises because of water molecules' cohesion, makes droplets form from a stream and allows some insects to walk on water.

ANSWER: **surface tension**

[H] This substance is the key ingredient in the soap-making process, where saponification transforms it into soap and, usually, glycerin. This strong base was traditionally made by leaching wood ash with water.

ANSWER: **lye** [or **sodium hydroxide** or **NaOH**; accept **potassium hydroxide** or **KOH**]

[M] Dilute solutions of this other base are used as another cleaning product, and work by forming soap when reacting with oily dirt. This compound, which is most widely used in fertilizers, is made using the Haber process.

ANSWER: **ammonia** [or **NH3**]

<Chemistry — Gray> [Edited]

6. **Chili bombs and beehive fences are used to repel these animals from farmland. Males of these animals secrete temporin from glands on the side of their heads in periods of hyper-aggression known as "musth." These animals' mourning rituals for their dead may have inspired the myth that they move their skeletons to a central (\*) "graveyard." These animals' 21-month gestation period is the longest of any mammal, and their *Loxodonta* genus is divided into bush and forest species. That African type of these animals is distinguished from the Asian variety by their large fan-like ears. For 10 points, name these largest land animals in the world.**

ANSWER: **elephants** [accept African **elephants** or Asian **elephants** or Indian **elephants**]

<Other — Sheffield> [Edited]

6. A character of this type gives Special Order 937, which states: “Priority one: Insure return of organism for analysis. All other considerations secondary. Crew expendable.” For 10 points each:

[H] Name this type of character. One of these characters called “Mother” intended for that order to be communicated to Ash, but not to Ripley and other crew members aboard the *Nostromo*.

ANSWER: **computer** [or **artificial intelligence** or **AI**; accept answers describing **space ship control system**; do NOT accept or prompt on “robot”]

[M] The computer “Mother” features in this 1979 Ridley Scott film, whose title creature quickly grows in size after gaining access to the *Nostromo* by latching onto Kane’s face.

ANSWER: ***Alien***

[E] In *Alien*, Ash is one of these characters, a robot designed to look human. The replicants in *Blade Runner* are based on characters of this type in a Philip K. Dick novel whose title asks whether they “Dream of Electric Sheep.”

ANSWER: **android** [or **andy**]

<Film — Condron> [Edited]

7. **In this novel, a character is called an “owdacious puppy” after he kisses his aunt on the lips. This novel’s protagonist hands a Bible reading “Half-past two” to Sophia, whose elopement with Harney sparks a shootout between their families. The protagonist of this novel meets two con men who claim to be royalty and call themselves the (\*) Duke and the Dauphin. The Widow Douglas adopts and tries to “sivilize” the protagonist of this novel. This novel’s protagonist fakes his death to escape from his abusive father Pap. For 10 points, the title character travels down the Mississippi on a raft with the escaped slave Jim in what novel by Mark Twain?**

ANSWER: *The Adventures of **Huckleberry Finn*** [accept **Huck Finn**]

<Long Fiction — Lin> [Edited]

7. A Charles Mingus track varyingly titled “Fables of” this politician lambasts him as “sick” and “ridiculous” for not permitting integrated schools. For 10 points each:

[H] Name this Arkansas governor who refused to allow the Little Rock Nine to enter Little Rock Central High School until Dwight Eisenhower sent the 101st Airborne Division to force integration.

ANSWER: Orval **Faubus** [or Orval Eugene **Faubus**]

[E] Faubus’s decision to keep Arkansas public schools segregated violated the Supreme Court’s ruling in this case, which held that segregated public schools violated the Equal Protection Clause.

ANSWER: ***Brown v. Board of Education of Topeka***

[M] The Equal Protection Clause is part of this constitutional amendment, one of the three passed during Reconstruction. This amendment was invoked in the case *Lochner v. New York*.

ANSWER: **Fourteenth** Amendment

<American History — Condron> [Edited]

8. **A collection by this composer features the same melody in its opening “Arieta” and closing “Remembrances.” That collection of 66 short piano pieces by this composer also includes one titled for a “Wedding Day” at this composer’s hometown. The *Lyric Pieces* are by this composer, who also wrote a cello and bass pizzicato melody that gradually increases in both speed and volume. The piece (\*) “Morning Mood” begins a suite by this composer that ends with the title character being chased by a horde of trolls. For 10 points, name this Norwegian composer who included “In the Hall of the Mountain King” in his incidental music to *Peer Gynt*.**

ANSWER: Edvard **Grieg** [or Edvard Hagerup **Grieg**]

<Classical Music — Sheffield> [Ed. Ma]

8. These functions are formally defined as a bijection from a set to itself. For 10 points each:

[M] Name these functions that rearrange the elements of a set. The number of these functions for a set of  $n$  distinct elements is given by  $n!$  (“ $n$  factorial”).

ANSWER: **permutations**

[H] A permutation is called a derangement if it does not have any of these points. These points are elements that are mapped to themselves.

ANSWER: **fixed** points

[E] The limit of the ratio of the number of derangements of a set of size  $n$  to the number of permutations as  $n$  approaches infinity is one over this number. This irrational number is the base of the natural logarithm.

ANSWER:  **$e$**  [or **Euler**’s number]

<Math — An> [Edited]

9. **Acceleration squared times this quantity squared is proportional to the power radiated by a particle. This quantity multiplies both of the added terms in the formula for the Lorentz force. The electric flux through a closed surface is equal to the amount of this quantity enclosed according to Gauss’s law. Velocity cross (\*) magnetic field times this quantity gives the magnetic force on a moving particle. The time derivative of this quantity is current. Points with nonzero values of this quantity feel an electrostatic force given by Coulomb’s law.** For 10 points, name this quantity symbolized  $q$  which is positive for protons and negative for electrons.

ANSWER: electric **charge**

<Physics — Sheffield> [Ed. Bowman]

9. For 10 points each, answer the following about sports in postmodern American literature:

[E] The death-obsessed Gary Harkness plays this sport in Don DeLillo’s novel *End Zone*. DeLillo also wrote *The Silence*, in which a global blackout prevents five friends from watching this sport’s 56th Super Bowl.

ANSWER: American **football** [or **gridiron**; do NOT accept or prompt on “association football”]

[H] This author recounted his experience as a “near-great” youth player of tennis in his essay “Derivative Sport in Tornado Alley.” In a novel by this author, James and Avril Incandenza run the Enfield Tennis Academy.

ANSWER: David Foster **Wallace** (The novel is *Infinite Jest*.)

[M] The narrator recalls the athletic prowess of Swede Levov at the opening of this author’s novel *American Pastoral*. Alexander Portnoy reminisces on his time as a “center fielder for the Seabees” in this author’s *Portnoy’s Complaint*.

ANSWER: Philip **Roth**

<Other Literature — Lin> [Ed. Orr]

10. **This leader used his newspaper, *The Defender of the Constitution*, to criticize calls for a war against Austria made by Jacques-Pierre Brissot. Cecile Renault attempted to assassinate this leader, who opposed both the Girondists and an atheist cult created by Jacques-René Hebert. This leader promoted the (\*) Cult of the Supreme Being and secured power after the death of his former ally Georges Danton. The Thermidorian Reaction began with the execution of this leader and “incorruptible” member of the Committee of Public Safety.** For 10 points, name this Jacobin French revolutionary leader who oversaw the Reign of Terror until his own execution by guillotine.

ANSWER: Maximilien **Robespierre**

<European History — Amanullah> [Ed. Prabhakar]

10. When this deity vows to kill a thousand people every day, her husband says that he will create fifteen-hundred more in response. For 10 points each:

[H] Name this goddess who marries her twin brother in a ceremony where they both circle a pillar in opposite directions. Later, this goddess dies after giving birth to Kagutsuchi, the god of fire.

ANSWER: **Izanami** [do NOT accept or prompt on “Izanagi”]

[M] After the death of Izanami, many of these deities are created from the tears of her husband Izanagi. Izanami and Izanagi themselves are examples of these Shinto spirits, as are their children Amaterasu, Tsukuyomi, and Susano’o.

ANSWER: **kami**

[E] To retrieve his dead wife, Izanagi journeys to Yomi, which is the Japanese version of this place. Because Izanami has already eaten food cooked in this place similar to hell, she is unable to return to the land of the living.

ANSWER: the **underworld** [or the **afterlife**]

<Mythology — An> [Ed. Venkateswaran]

11. **This thinker wrote about a man named John Jones, who beats another John to death with a tree branch, in an essay collection that also contains the essay “Of the Wings of Atalanta.” This thinker described people “shut out from the world” by a metaphorical veil in the essay “Of Our Spiritual Strivings.” This thinker described the “twoness” felt by certain people viewing themselves through both their own eyes and the eyes of society in the phenomenon of (\*) “double consciousness.” This thinker critiqued Booker T. Washington’s Atlanta Compromise, instead suggesting a fight for civil rights. For 10 points, name this co-founder of the NAACP who wrote *The Souls of Black Folk*.**

ANSWER: W. E. B. **Du Bois** [or William Edward Burghardt **Du Bois**]

<Other Social Science — Bowman> [Edited]

11. One album from this country consists of two sets of four untitled songs with a 36-second gap of silence in between, and features the characteristic bowed guitar and falsetto vocals of its singer, Jónsi (“yawn-see”) For 10 points each:

[E] Name this country, where bands like Hjaltalín and GusGus were founded in the capital city of Reykjavík.

ANSWER: **Iceland** [accept **Ísland**]

[H] Jónsi released that album, whose title is just a pair of parentheses, with this Icelandic post-rock band. All the vocals for that album were sung in an invented language called “Hopelandic,” which this band has also used for songs like “Mílanó” and “Hoppípolla.”

ANSWER: **Sigur Rós**

[M] This other Icelandic artist sang with alt-rock band The Sugarcubes until their 1992 breakup. She collaborated with director Michel Gondry on surrealist music videos for her songs “Human Behavior” and “Army of Me.”

ANSWER: **Björk** [or **Björk** Guðmundsdóttir]

<Misc. Art — Sheffield> [Edited]

12. **George Tsutakawa’s bronze Fountain of Wisdom lies in front of a building in this city whose fourth floor is the blood-colored Red Hall. That library is known for its neon yellow escalators and irregular diamond-patterned glass exterior, and was designed by Rem Koolhaas. This city’s (\*) monorail, which is less than a mile long with only two stops, was built for the 1962 World’s Fair. This city’s Pike Place Market includes the Original Starbucks. A rotating restaurant is in the flying saucer-like top to an iconic spindly tower in this city which overlooks Puget Sound. For 10 points, the Space Needle is located in what largest city in Washington state?**

ANSWER: **Seattle**

<Geography — An> [Ed. Gray]

12. The title character of this play believes that he willed his house to burn down by staring at a crack in the chimney, since the troll within him has power over the devils of the world. For 10 points each:

[H] Name this play. At the end of this play, Halvard Solness climbs to the top of a roof at the urging of Hilda, but he falls off and dies.

ANSWER: *The **Master Builder*** [or ***Bygmester Solness***]

[M] This playwright wrote about Solness in *The Master Builder*. In another play by this author, the sound of a door shutting is heard offstage as the title character leaves her husband, Torvald.

ANSWER: Henrik **Ibsen**

[E] Henrik Ibsen was from this country. Knut Hamsun's *Hunger* follows a man who "wandered about and starved" in this country's capital Christiania, which is now called Oslo.

ANSWER: **Norway** [or Kingdom of **Norway** or Kongeriket **Norge**]

<Drama — Sheffield> [Ed. French]

13. **During this leader's rule, many homosexuals and Christians were imprisoned in labor camps called "Military Units to Aid Production." This leader was the strongest international supporter of the MPLA party and sent troops to fight on their side during the Angolan Civil War. In an effort to expel "undesirables" from his country, this leader permitted emigration on the (\*) Mariel Boatlift. This leader was targeted by the CIA in Operation Mongoose and more than 600 assassination attempts. This leader successfully repelled an American overthrow attempt in the Bay of Pigs Invasion. For 10 points, name this longtime Cuban communist leader who was succeeded by his brother Raúl.**

ANSWER: **Fidel Castro** [prompt on **Castro**]

<World History — Amanullah> [Edited]

13. For 10 points each, answer the following about hydrocarbons in microbiology:

[M] Members of this domain of life produce the simplest hydrocarbon, methane, in marshes and in the guts of herbivores. Analysis of the 16s rRNA gene led Carl Woese to differentiate this domain from Bacteria.

ANSWER: **Archaea** [or **archaeon** or **archaeans**; accept **Archaeobacteria**]

[H] This phylum of bacteria employs the hydrocarbon pentadecane to help stabilize their thylakoid membranes. Chains of these bacteria contain specialized heterocysts, which are the most abundant nitrogen fixers in the ocean.

ANSWER: **Cyanobacteria** [or **cyanobacterium** or **blue-green algae** or **Cyanophyta**]

[E] Some bacteria feed on the hydrocarbons that comprise this liquid, released from underwater "seeps." A 2010 spill of this liquid from *Deepwater Horizon* destroyed ecosystems in the Gulf of Mexico.

ANSWER: crude **oil** [or **petroleum**; accept **oil** seeps or **oil** spill]

<Biology — Yin> [Edited]

14. **In a story from this country, an argument at a dinner party about whether the death penalty or life imprisonment is worse leads to the central agreement. In that story from this country, a lawyer renounces earthly life after voluntarily enduring 15 years of solitary confinement. The protagonist of a story from this country encounters a former lover at a performance of *The Geisha*. An author from this country wrote (\*) "The Bet" and "The Lady with the Dog." In a story from this country, a barber cuts into a loaf of bread and discovers the title body part inside. For 10 points, name this home country of Anton Chekhov and the author of "The Nose," Nikolai Gogol.**

ANSWER: **Russia** [or **Russian** Federation or **Rossiyskaya** Federatsiya or **Rossiya**]

<Other Literature — Lin> [Ed. Condrón]

14. One member of this art movement, Gustave Caillebotte, depicted people and a dog walking on a bridge in *Le Pont de l'Europe*. For 10 points each:

[E] Name this art movement that was characterized by thick brushstrokes and capturing proper lighting, often done by painting outside, or *en plein air*. Claude Monet's *Water Lilies* series is from this movement.

ANSWER: **impressionism** [accept word forms like **impressionist**; accept **Impression**, *Sunrise*]

[M] This impressionist artist painted Parisian couples enjoying festivities at an outdoor dance hall in *Bal du moulin de la Galette*. One figure in this artist's *Luncheon of the Boating Party* is modeled after Caillebotte.

ANSWER: Pierre-Auguste **Renoir**

[H] This other impressionist artist painted a woman with a parasol sitting on a stone wall in *Harbor at Lorient*. This sister-in-law of Edouard Manet also painted a woman watching her sleeping daughter in *The Cradle*.

ANSWER: Berthe **Morisot** [or Berthe Marie Pauline **Morisot**]

<Painting — Miles> [Ed. Venkateswaran]

15. A class of proteins named for their activation of this process are phosphorylated by Janus kinases in the JAK-STAT pathway. In most eukaryotes, a molecule produced in this process is modified by the addition of a 5-prime cap and polyadenylation immediately after this process. Activator proteins increase the probability that this process will occur by binding to (\*) enhancer sequences. This process is initiated when RNA polymerase binds to a promoter. For 10 points, name this process that takes in a DNA template to produce mRNA, which is the intermediate between DNA replication and translation.

ANSWER: **transcription** [accept **transcription** factors]

<Biology — Yin> [Ed. Schwartz]

15. Shah Alam II granted this organization Diwani rights in the Treaty of Allahabad, meaning that it could collect land taxes and administer courts. For 10 points each:

[M] Name this organization which won those rights after defeating Mir Qasim at the Battle of Buxar. Earlier, this organization won the Battle of Plassey under the leadership of Robert Clive.

ANSWER: British **East India Company** [or **EIC**]

[E] Shah Alam II was the monarch of this empire, which ruled much of India until it was conquered by the British. Babur founded this empire, whose ruler Shah Jahan built the Taj Mahal in Agra.

ANSWER: **Mughal** Empire [or **Mughal** Dynasty]

[H] This earlier Mughal emperor fought the East India Company in Child's War, forcing the company to pay a massive fine. This emperor came to power after defeating his elder brother Dara Shikoh at the Battle of Samugarh.

ANSWER: **Aurangzeb** [or **Muhi-ud-din Muhammad** or **Alamgir**]

<World History — French> [Ed. Prabhakar]

16. In a form of Inuit musical performance called *katajjaq*, two people face each other and perform this instrument in short, rhythmic patterns. The term "fry" is used to refer to the lowest register of notes producible by this instrument. Rhythm is emphasized over pitch in the *sprechstimme* style of performing this instrument, while highly articulated phrasing is characteristic of its (\*) bel canto style. A style of delivery for this instrument is the rectative. This instrument is usually the soloist of arias. For 10 points, performers use namesake chords in their throats to produce the sounds of what instruments used in choirs?

ANSWER: human **voice** [or **singing** or **vocalizing**; accept **talking**]

<Misc. Art — An> [Edited]



16. This story opens by describing signs which show that winter is imminent, such as women who want new warm coats being extra nice to their husbands. For 10 points each:

[H] Name this story in which the homeless man Soapy repeatedly fails to get sent to jail in Blackwell's Island for the winter, decides to reform himself, but then is quickly arrested for loitering.

ANSWER: "The **Cop and the Anthem**"

[M] "The Cop and the Anthem" is one of the stories about New Yorkers in this author's collection *The Four Million*. Another story by this author opens with a character crying on Christmas Eve after repeatedly counting her \$1.87.

ANSWER: O. **Henry** [or William Sydney **Porter**]

[E] In this story from *The Four Million*, Della sells her hair in order to buy a watch chain for her husband Jim, only to find that Jim has sold his watch to buy combs for her hair.

ANSWER: "The **Gift of the Magi**"

<Other Literature — Lin> [Ed. Condrón]

17. **One character played by this actor writes the book "Death Therapy" after his psychiatrist Dr. Marvin tries to blow him up for disturbing his vacation. Another of this actor's characters carves an ice statue of his love interest after she wins him in a bachelor auction, and wakes every morning to the song (\*) "I Got You Babe" on the radio. One of this actor's characters joins fellow parapsychologists Ray Stantz and Egon Spengler to defend New York from supernatural activity, while another goes to report on Punxsutawney Phil but gets stuck in a time loop. For 10 points, name this actor who played Phil in *Groundhog Day* and Dr. Peter Venkman in *Ghostbusters*.**

ANSWER: Bill **Murray** [or William James **Murray**]

<Pop Culture — Sheffield> [Edited]

17. For 10 points each, answer the following about price discrimination, in which firms charge different amounts to different customers for equivalent products:

[M] The Robinson-Patman Act forbids price discrimination if it hinders this phenomenon. Markets characterized by the "perfect" form of this phenomenon can't engage in price discrimination because individual firms have zero market power.

ANSWER: **competition** [accept word forms like **competitive**; accept perfect **competition**]

[E] Firms in this market structure can practice first degree price discrimination, capturing the entirety of the consumer surplus. Antitrust laws like Robinson-Patman aim to prevent these anticompetitive market structures, in which there's only one firm.

ANSWER: **monopoly** [accept word forms like **monopolize**; do NOT accept or prompt on "monopolistic competition"]

[H] A monopoly practicing first degree price discrimination would theoretically be able to eliminate this quantity. This term refers to the economic inefficiency resulting from production below the socially optimal level of output.

ANSWER: **deadweight loss** [or **excess burden**; accept **DWL**]

<Economics — Sheffield> [Edited]

18. **The hydrophobic effect is driven by the fact that this quantity is larger for free water molecules than water molecules trapped in solvation shells. This value decreases when two ideal gases composed of indistinguishable particles are mixed in a thought experiment developed by Gibbs. In order for a reaction with positive enthalpy to be (\*) spontaneous, the change in this quantity must be negative. The change in Gibbs free energy equals change in enthalpy minus the change in this quantity times temperature. For 10 points, name this quantity that always increases in an isolated system according to the second law of thermodynamics.**

ANSWER: **entropy**

<Chemistry — Schwartz> [Edited]

18. A group called EOKA fought for the end of British rule of this country and unification with another country as part of the policy of *enosis*. For 10 points each:

[H] Name this country, whose first president was overthrown by hardline supporters of *enosis*. That overthrow of this country's president precipitated an invasion that resulted in the creation of the Green Line in this country.

ANSWER: Republic of Cyprus

[E] This country carried out the aforementioned invasion of Cyprus because this country did not want to see Cyprus join Greece. This country's capital was moved to Ankara from Istanbul by its first president Mustafa Kemal.

ANSWER: Republic of Turkey

[M] A failed plan to solve the Cyprus dispute was put forward by Kofi Annan, a holder of this position. An earlier holder of this position from Sweden, Dag Hammarskjöld, was killed in a 1961 plane crash in modern-day Zambia.

ANSWER: Secretary-General of the United Nations [or Secretary-General of the UN; prompt on Secretary-General; do NOT accept or prompt on "General-Secretary"]

<European History — Prabhakar> [Edited]

19. In a story by this author, a man misquotes a Gnostic theologian by stating, "mirrors and copulation are abominable, for they multiply the number of men." In that story, this author and his friend Bioy-Casares discover a conspiracy that has inserted a false article about Uqbar into a copy of the *Anglo-American Cyclopedia*. In another story by this author, *Don Quixote* is rewritten without changes by (\*) Pierre Menard. This author wrote a story in which an almost-infinite number of hexagonal rooms make up a library containing every possible book. For 10 points, name this Argentinian author of "The Library of Babel" and "The Garden of Forking Paths."

ANSWER: Jorge Luis Borges

<Other Literature — French> [Edited]

19. Answer the following about best practices to use when coding, for 10 points each:

[E] These constructs are human-readable text and annotations used to document code. Lines used for these constructs might be denoted with a hash mark in Python or two slashes in Java.

ANSWER: comments

[M] When working with other programmers, you might use this version control system to manage changes. In this system, "commits" are revisions which can be "pushed" or "pulled" to a "Hub" website named for this system.

ANSWER: git [accept GitHub]

[H] It's good practice to test code using both integration tests, which test the system as a whole, and this kind of test, which is for individual classes or methods. A Java framework for this kind of test is named "J"- this kind of test.

ANSWER: unit test [accept JUnit]

<Computer Science — Gray> [Edited]

20. Elizabeth Peratrovich (*Peh-RAT-ruh-vich*) fought against discrimination towards indigenous peoples in this state. A shootout at a wharf in this state's capital city resulted in the death of con artist Soapy Smith. Eduard de Stoeckl ("sto-kel") was a signatory to an agreement concerning this state, where an elected legislature was established under the Second (\*) Organic Act. Japanese forces bombed Dutch Harbor in this state during World War II. Many miners traveled to this state to participate in the nearby Klondike Gold Rush. The purchase of what would become this state was often ridiculed by contemporary observers as "Seward's Folly." For 10 points, name this northernmost U.S. state.

ANSWER: Alaska

<American History — Athreya> [Ed. Prabhakar]

20. These people often hunted with a throwing weapon made of weights attached to leather cords called a *bola*. For 10 points each:

[H] Name these people, whose *payada* ballads influenced the epic poem *Martín Fierro*. These cowboys roamed the plains of Argentina and Uruguay in the 18th and 19th centuries.

ANSWER: **gauchos**

[E] Many gauchos carried a long one of these tools called a *facón*, which they also used for fighting. The Swiss Army type of these tools combines one of them with other things like a screwdriver and a can-opener.

ANSWER: **knives**

[M] Most Argentine gauchos lived in the Pampas or in this region, which stretches from the Colorado River to Tierra del Fuego. The Tehuelche people are indigenous to this region in the south of Argentina and Chile.

ANSWER: **Patagonia**

<Geography — French> [Edited]