

## Don't Underestimate Our Set (DUOS) Packet 8

Head Editors: Sinecio Morales, Arya Singh

Edited by: Justin Abel, Alexander Crowell, Rohan Ganeshan, Kaushik Gollamudi, Rohan Kher, Sinecio Morales, Arya Singh, Shiva Tegulla, Charahc Young

Written by: Aatreya Bhattacharyya, Samuel Go, Vishnuu Gopi, James Healy, Zainab Memon, Shardul Parthasarathy, Anirudh Prasanna, Jason Wang, Allie Yang

1. In a play in this language, a Singer performs pieces such as “The Four Generals” and “Chaos in Egypt” before one character crosses a rotten bridge to reach the Northern Mountains. In another play in this language, the title character is distracted by the selling of a silver belt-buckle after she draws black crosses to tell fortunes. In that play in this language, a character is executed for stealing a cash box from a regiment and Yvette sings the “Fraternization Song.” Grusha is given the child Michael by the Judge (\*) Azdak in a play in this language named the *Caucasian Chalk Circle*. Another play in this language includes the children Katrin, Elif, and Swiss Cheese. A dramatist in this language who wrote plays such as *Mother Courage and Her Children* also collaborated with Kurt Weill [“vile”] on *The Threepenny Opera*. For 10 points, name this language of playwright Bertolt Brecht [“bear-tolt br-ekt”].

ANSWER: **German** [or **Deutsch**] <Ganeshan - European Literature>

2. *Description acceptable.* Britain launched one of these events called Operation Tabarin to patrol for German U-boats. A cross on Observation Hill contains the name of five men that died during one of these events. The last words of Lawrence Oates during one of these events were “I am just going outside and may be some time.” Two vehicles called the *Endurance* and the (\*) *Nimrod* was used on one of these events by Ernest Shackleton, who died during one. While leading the *Terra Nova*, Robert Scott died shortly after seeing a Norwegian flag while trying to return from one of these events. In 1911, Roald Amundsen successfully led one of these events. For 10 points, name these events in which naval vessels travel to the southernmost continent.

ANSWER: **expeditions** to **Antarctica** [accept any descriptions that indicate trips to **Antarctica**; accept **expeditions** to the **South Pole** or any answers describing trips to the **South Pole**] <Bhattacharyya - Ancient/Other History>

3. Potentials for which the bound types of these entities are closed include that of a radial harmonic oscillator, according to Bertrand's theorem. Motion using these entities can be predicted by the *vis-viva* equation. A Hohmann transfer is used to switch between two of these entities. The halo type of these entities may arise near the L1, L2, or L3 Lagrange points between two (\*) celestial bodies. The square of the period of these entities is equal to the cube of its semi-major axis, according to Kepler's third law. The eccentricity of these entities is generally greater than zero, because all the planets in the solar system have elliptical types of them. For 10 points, name this curved trajectory of a celestial body as a result of gravity.

ANSWER: **orbits** <Tegulla - Physics>

4. Dave Brubeck collaborated with two players of this instrument, Anthony Braxton and Lee Konitz, on the album *All the Things We Are*. Joe Zawinul wrote the track “Mercy, Mercy, Mercy” for a player of this instrument. “Congeniality” and “Lonely Woman” were included on the album *The Shape of Jazz to Come* by Ornette Coleman, a player of this instrument. This instrument, played by (\*) “Cannonball” Adderley, was also played by a musician who, with Dizzy Gillespie, co-founded the bebop movement and created the song “Ornithology.” One player of this instrument employed his namesake “changes” and “sheets of sound” playing style on a track that modulates on nearly every note. *Giant Steps* was created by a musician who played, for 10 points, what instrument of Charlie Parker and John Coltrane?

ANSWER: alto **saxophone** [accept tenor **saxophone**; accept soprano **saxophone**] <Crowell - Other Fine Arts>

5. A district in this city is home to the Avenue of Stars, a promenade commemorating this city's film celebrities, and it also contains the Chungking [“Choong-king”] Mansions, which has garnered a seedy reputation among local residents. Octopus cards can be used in retail stores throughout this city, but it is most widely used for this city's MTR mass transit system. This place used to be home to an ungoverned “walled city” that was controlled by local triads. (\*) *Yum cha* is a brunch tradition of drinking tea and eating *dim sum* in this city, and the Star Ferry is a popular tourist attraction that carries passengers across Victoria Harbour in this city. This city, located across the Pearl River from Macau, is governed under a “one country, two systems policy” to maintain its autonomy. For 10 points, name this metropolis which was returned to China by the United Kingdom in 1997.

ANSWER: **Hong Kong** <Go - Geography>

6. **This quantity is shown to be linearly proportional to the fourth power of the velocity dispersion of an elliptical galaxy, leading to the formulation of the Faber-Jackson relation. A limit for this quantity named for Arthur Eddington occurs when a star's radiative and gravitational force cancel each other out. Henrietta Levitt observed that this quantity predictably shifted for a (\*) Cepheid variable due to its periodic pulsation. This quantity is plotted on the y-axis of a Hertzsprung-Russell diagram. An object for which this quantity is known and serves as a benchmark for interstellar distance is called a standard candle. The apparent form of this quantity for a stellar object is dependent on its distance from the observer. For 10 points, name this quantity, the light output of a star, which essentially serves as a measure of brightness.**

ANSWER: **luminosity** [prompt on magnitude] <Tegulla - Other Science>

7. **In one myth, one of these animals causes another to drop a box containing all the light in the world by stabbing him. An Aztec son of Coatlicue is depicted as a blue one of these animals. That deity once killed all 401 of his siblings and required sacrifices to prevent the world from being destroyed. A common story in the Pacific Northwest tells of a conflict which results in areas being unable to grow trees fought between a whale and one of these animals named after (\*) Thunder. It's not a Coyote, but several of these animals serve as trickster gods of the Pacific Northwest. One of these animals that combusts and is reborn from the ashes is known as a Phoenix. For 10 points, identify these winged creatures, examples of which include the Eagle.**

ANSWER: **birds** [accept **Ravens**, **Hummingbirds**, **Thunderbirds**, **Crows**] <Gollamudi - Mythology>

8. **Thatched roofs and cyprus logs were used to build chickee settlements in this state, where the agent Wiley Thompson was killed shortly after a massacre that killed all but three of a group of soldiers supplying Fort King. In this state, a leader was deceived when he was captured despite a truce being set up by Thomas Jesup. A reservation in this state was established by the Treaty of Moultrie Creek. Andrew Jackson ordered the destruction of the Negro Fort in this state, which was the site of the (\*) Dade Massacre. The Treaty of Payne's Landing was signed by Osceola, who resisted American forces in this state. For 10 points, name this state where American troops forced Seminoles into reservations in the Everglades.**

ANSWER: **Florida** <Kher - American History>

9. **This character sings about a man whose "breeches cost him but a crown" in a drinking song titled for King Stephen. He claims a "good name" is an immediate jewel in a speech that states "he who steals my purse steals trash." This character refers to reputation as "an idle and most false imposition" and states, "From this time forth I never will speak a word." This character utters, "I will wear my heart upon my sleeve / for draws to peck at" and warns a man about a (\*) "beast with two backs." This man converses with Roderigo in the beginning of the play he appears in. This character asks his wife to steal a strawberry-embroidered handkerchief but murders her after she reveals his schemes. This husband of Emilia warns of a "green-eyed monster" in an attempt to convince a man that Cassio is sleeping with Desdemona. For 10 points, name this villain of Shakespeare's *Othello*.**

ANSWER: **Iago** <Ganeshan - British Literature>

10. **A paraneoplastic degenerative disease that affects this structure has been linked to the action of anti-Yo antibodies. This structure may unusually extend below the foramen magnum as a result of a Chiari malformation. The transmission of input signals from this structure's inferior olivary is facilitated by a system of "climbing fibers." The four types of deep nuclei present within the white matter of this structure receive inhibitory inputs from (\*) Purkinje cells. Lesions in this structure cause an ataxia that results in an abnormal gait. This structure lies directly behind the pons and under the occipital lobe, and is largely responsible for balance and motor control. For 10 points, name this structure of the brain whose name in Latin means "little brain."**

ANSWER: **cerebellum** <Tegulla - Biology>

11. **The virgin Mary is unconventionally off-center in a painting from this city that depicts two putti atop a storm cloud as a knight carries a large red flag bearing the papal arms and presents a Moorish prisoner. That work is the *Pesaro Madonna*. Instruments of torture lying in the foreground as this city's patron saint descends upon the title figure in *The Miracle of the Slave*, a work by an artist from this city who is famous for a (\*) diagonal iteration of the Last Supper. One of the title mythological figures is depicted in a red cape riding a cheetah-drawn chariot in a work from this city titled *Bacchus and Ariadne*. A maid rummages in the background of another work by that artist that depicts a dog lying at the feet of a nude goddess. *Venus of Urbino* was painted by an artist from, for 10 points, what city where Tintoretto and Titian painted amongst numerous canals?**

ANSWER: Venice, Italy <Crowell - Visual Fine Arts>

12. **Solos for soprano saxophone and piano precede the section "The Ballad of Brenda and Eddie" in this artist's song "Scenes From an Italian Restaurant." One song by this musician of the solo piano "Root Beer Rag" is alternatively titled "Anthony's Song" and appears on an album whose title track opens with melancholic whistling to depict the title *Stranger*. In addition to (\*) "Movin' Out," this singer wrote a song that intertwines the stories of a politically active waitress, the naval officer Davy, and the bartender John. A historically-inspired song by this singer argues that the title phenomenon has been "always burning / since the world's been turning," and harmonica interjections follow the phrase "It's nine o'clock on a Saturday" in this singer's most famous song. For 10 points, name this singer and songwriter of the hits "We Didn't Start the Fire" and "Piano Man."**

ANSWER: Billy Joel <Crowell - Pop Culture>

13. **After Gian Rinaldo Monaldeschi betrayed a ruler of this country, she had him assassinated at the Palace of Fontainebleau. The Skirmish at Bender tried to get rid of a king of this country that was seeking refuge in present-day Moldova. Another king of this country annexed the territory of his relative Sigismund III. One ruler of this country was taught by Rene Descartes and (\*) abdicated to move to Rome in 1654. Axel Oxenstierna served as regent for this country after its king died at the Battle of Lutzen. Another king of this country, Charles XII, lost the Battle of Poltava in the Great Northern War. For 10 points, name this Scandinavian country once ruled by Gustavus Adolphus.**

ANSWER: Sweden <Prasanna - European History>

14. **A "sensory register" serves as a minimal reservoir for this phenomenon, according to the Atkinson-Shiffrin model for it. The decline in this phenomenon is set as a logarithmic function of time to construct the Ebbinghaus curve. The description of car crashes with stronger verbs like "smash" altered this phenomenon in an experiment run by John Palmer and (\*) Elizabeth Loftus. George A. Miller quantified the limit for one form of this phenomenon with the so-called "magical number", which equals seven plus or minus two. Vivid or traumatic experiences induce the "flashbulb" type of this phenomenon, and the method of loci enhances this phenomenon by using spatial mnemonics. For 10 points, name this phenomenon which has short-term and long-term forms.**

ANSWER: memory [accept word forms of remembrance and recall] <Tegulla - Social Science>

15. **In a short story titled for one of these places, the narrator shoots a man in the back before describing himself feeling "infinite penitence and sickness of the heart." One character in a story titled for one of these places smiles at select words of the song "This Life is Weary" before the protagonist states "Isn't life, isn't life-." A man delivers Godber's cream puffs in that short story titled for one of these places. The "horse-faced" agent (\*) Richard Madden stalks a spy who narrates a short story titled for one of these places. An incomplete novel by Ts'ui Pen titled for one of these places also names the story he appears in. An event is cancelled after Laura Sheridan learns the news of Mr. Scott's death in a short story by Katherine Mansfield titled for a party in one of these places. For 10 points, name these places including one "of Forking Paths," which are utilized to grow plants.**

ANSWER: gardens [accept "The Garden of Forking Paths," "The Garden Party;" prompt on labyrinth with "What is it called in the title of the story?"] <Morales - Other Literature>

16. This quantity is determined solely by the speed of solute traversal in “diffusion-limited” processes. For zeroth-order reactions, this quantity is independent of concentration. In Michaelis-Menten kinetics,  $V_{\text{max}}$  represents the value for this quantity achieved at maximum saturation. Equations which relate this quantity to the products  $a$  and  $b$  raised to their stoichiometric coefficients are referred to as this quantity’s namesake (\*) “laws.” This quantity’s namesake constant is equal to  $A$  times  $e$  to the power of negative  $E_{\text{sub-}a}$  over  $RT$ , according to the Arrhenius equation. Enzymes increase this quantity by decreasing the activation energy. The appearance of products as a function of time equals, for 10 points, what quantity that measures the speed of a reaction?

ANSWER: reaction rate [anti-prompt on reaction rate constant; prompt on velocity] <Tegulla - Chemistry>

17. An author from this country describes a residence built “on high erect Fram’d by that mighty Architect” in a poem where she “raises her thoughts above the sky that dunghill mists away may fly.” A poet from this country questions “Does not your soul possess the sacred flame?” to a figure “beneath the myrtle shade.” That poet from this country learns “there’s a Savior too” in a poem describing an “angelic train.” Love valued above “all the riches that the East doth hold” is depicted by a poet from this country who described an (\*) “ill-formed offspring” of a feeble brain. A leader of this country is told, “Proceed, great chief, with virtue on thy side.” The author of “Verses Upon the Burning of Our House” collected her poems in an anthology titled *The Tenth Muse Lately Sprung Up in [This country]*. For 10 points, Phyllis Wheatley and Anne Bradstreet once resided in what country’s state of Massachusetts?

ANSWER: The United States of America [accept either underlined portion, or U.S.A] <Ganeshan - American Literature>

18. This thinker proposed that beings who only *partially* transcend time possess “aeviternity.” This man argued against the idea that “goodness” and “being” are different in any practical aspect. This thinker expressed the first instance of a method of evaluating well-intentioned yet harmful actions called the “principle of double effect.” One work by this thinker critiqued the “unity of the intellect” argument of Averroes, whom this philosopher labelled (\*) “The Commentator” in his magnum opus. Three moral conditions must be fulfilled in this philosopher’s argument of “just war.” This thinker argued his Prima Via using the idea of an “unmoved mover”; that proof is part of his *quinque viae*, which are five arguments for the existence of god. For 10 points, name this medieval Scholastic thinker who wrote *Summa Theologica*.

ANSWER: Saint Thomas Aquinas <Tegulla - Philosophy>

19. Note to players: Composer and type of work required. One of these pieces opens with the solo horn notes [read slowly] “long C, up to D, up to E, down to A, up to a short B, up to C.” The fourth of these works in C minor is marked *Allegro vivace* and is nicknamed “Tragic.” August Ludwig added the “Philosopher’s Scherzo” and “March of Destiny” movements to the end of one of these works whose scherzo was only sketched. The sixth and ninth of these works are nicknamed as the composer’s “Great” and “Little” (\*) C major ones. One of these pieces is often performed with extracts from the composer’s *Rosamunde*. That work, the eighth of these pieces, is only two movements. For ten points, name these full orchestral works by an Austrian composer including one left unfinished.

ANSWER: symphonies by Franz Peter Schubert [accept obvious equivalents] <Morales - Auditory Fine Arts>

20. In this country, the economic setbacks caused by a strike of forty thousand truck drivers was mitigated by a recently constructed distributed decision support system that utilized telex machines. This country’s general Rene Schneider created his namesake “doctrine” to oppose military intervention in politics. A car bombing in Washington D.C. that killed Orlando Letelier was carried out by this country’s DINA secret police force. A leader of this country created a death squad called the (\*) “Caravan of Death.” That leader of this country was economically advised by the Chicago Boys and overthrew his Marxist predecessor in a military coup that culminated at La Moneda Palace. For 10 points, name this country where, pressured by an American-backed coup that installed Augusto Pinochet, Salvador Allende committed suicide in Santiago.

ANSWER: Republic of Chile <Crowell - World History>