

2022-23 Solon-Adjacent Novice Set (SANDS)

Edited by Tegan Kapadia, Jacob O'Rourke, Shourjo Ganguli, Grant Maiorana, Vedul Palavajjhala, and Pranav Sivaram
Written by the editors, Reece Chae, Ethan Feldman, Anish Kodali, Prahalad Rao, and Vishal Sareddy

Packet 12

1. *Description Acceptable*. **One app for this activity includes unique features like “Time Capsule” and “Discover Weekly”. That app releases a “Wrapped” at the end of the year with stats for this activity. Platforms like Pandora and (*) Soundcloud can be used for this activity, alongside devices like AirPods. Spotify and Apple Music are used to do, for 10 points, what activity that can be done with speakers or headphones?**
ANSWER: **listening** to **music** [accept **listening** to **podcasts**; prompt on **listening** or **music**] <Other Academic/Miscellaneous–Ganguli>

The crew of this ship used a dove to safely pass through a pair of clashing rocks, the Symplegades. For 10 points each:

[M] Name this ship that was used by, and provided the name of, a group of heroes led by Jason in search of the Golden Fleece.

ANSWER: **Argo** [or **Argonauts**]

[E] Because he once saved her, Jason was aided by this goddess when passing through the rocks and during the challenges for the fleece. This goddess was the wife of Zeus.

ANSWER: **Hera**

[H] To obtain the fleece, Jason was challenged to sow some of these items belonging to a dragon into the ground. Similarly, Cadmus sowed some of these items into the ground at the site where he founded Thebes.

ANSWER: **teeth** [prompt on **bone**] <Mythology–Kapadia>

2. **This ruler defeated Desiderius in the Siege of Pavia to become King of the Lombards in 774. From his court at Aachen, this ruler presided over the beginning of the Carolingian Renaissance. On Christmas Day 800, (*) Pope Leo III crowned this ruler as the first Holy Roman Emperor. For 10 points, name this Frankish king, who was the first to unite most of Western Europe since the fall of the Roman Empire.**

ANSWER: **Charlemagne** [or **Charles the Great** or **Carolus Magnus**; prompt on **Charles**] <European History–Rao>

In one novel, Hassan shouts “For you, a thousand times over” to Amir as he runs off to retrieve one of these toys. For 10 points each:

[M] A “Runner” of what toys titles a 2003 Khaled Hosseini novel? Participants attempt to cut their opponents’ strings in “fights” between these flying toys.

ANSWER: **kite** [or The **Kite Runner**]

[H] While retrieving a kite, Hassan is assaulted by Assef, who goes on to join this group. The author of the autobiography *I Am Malala* recounts how she was shot by this group for advocating for female education.

ANSWER: **Taliban**

[E] In *The Kite Runner*, Amir and his father flee to this country. At the end of the novel, Amir flies a kite with Hassan's orphan son at a park in this country's city of San Francisco.

ANSWER: **America** [or **U.S.A.** or **United States of America**] <World Literature–Kodali>

3. This novel and *Native Son* are criticized in James Baldwin's essay "Everybody's Protest Novel." The protagonist of this novel saves Eva St. Clare from drowning and is sold by Arthur Shelby. The author of this novel was supposedly called (*) "the little woman that started this great war." The vicious plantation owner Simon Legree beats the title character of this novel to death. For 10 points, name this anti-slavery novel by Harriet Beecher Stowe.

ANSWER: Uncle Tom's Cabin <American Literature–Ganguli>

This singer repeats the phrase "don't go yet" in a song from her 2022 album, *Familia*. For 10 points each:

[M] Name this former Fifth Harmony member, who claims that "I wish I could pretend I didn't need ya" in a song with Shawn Mendes, where she says she loves it when she's called the title name.

ANSWER: Camila Cabello

[E] The title of the aforementioned song, "Señorita," comes from this language. Cabello uses this official language of her birth country, Cuba, in songs like "Hasta Los Dientes" and "La Buena Vida".

ANSWER: spanish

[H] In a song titled for this period of time, Mendes and Cabello repeatedly say "I know, I know, I know". The line "can't seem to hold you close" is repeated in that song titled "I Know What You Did Last [this period of time]".

ANSWER: summer [accept "I Know What You Did Last Summer"] <Popular Culture–Ganguli>

4. On July 11, 2022, Iran announced that it will supply these devices to Russia, which is using the "Aeroscope" platform to identify communication links between these devices and their users. DJI makes commercial examples of these devices, which has been used to (*) surveil enemy positions and collect footage from safe positions by both sides of the Ukrainian conflict. Pilots remotely control, for 10 points, what unmanned aircraft?

ANSWER: drones [or UAV] <Current Events–Kapadia>

Wade's rules describe hydrides of this element. For 10 points each:

[H] Name this lightest metalloid. This element often violates the octet rule by having just six electrons around it.

ANSWER: Boron

[E] Hydrides, by definition, contain at least one atom of this element. This is the lightest element.

ANSWER: Hydrogen

[M] In hydrides, Hydrogen usually acts as one of these chemical species. These species have negative charge and form ionic bonds with cations.

ANSWER: anions <Chemistry–Chae>

5. In 1887, the Michelson-Morley experiment found this quantity to be constant in all directions. Due to faulty equipment, OPERA reported that neutrinos exceed this quantity, beyond which blue light is emitted due to Cherenkov radiation. Massless particles like (*) photons are thought to travel at this speed. Energy equals mass times this quantity squared. For 10 points, what constant symbolized *c* equals around 3 times 10⁸ meters per second in a vacuum?

ANSWER: speed of light [accept **c** before mentioned] <Physics–Chae>

God allowed this figure to regain his super strength one last time so he could collapse the Temple of Dagon, killing the people gathered within. For 10 points each:

[M] Name this Biblical judge who originally loses his super strength when his lover Delilah cuts his hair.

ANSWER: **Samson**

[E] Samson was constantly at odds with the Philistines, who were later defeated when David killed this giant with a slingshot.

ANSWER: **Goliath**

[H] Samson once destroyed an entire Philistine army with the jawbone of one of these animals. Balaam owned a talking one of these animals.

ANSWER: **donkey** [or jackass] <Religion–Kapadia>

6. A modernist composer from this nation wrote collections of *Gnossiennes* and *Gymnopédies*. The orchestral piece *Boléro* was written by a composer from this country, while another 20th-century composer from this nation composed *La Mer* and (*) “Clair de Lune”. Claude Debussy and Maurice Ravel were from, for 10 points, what European country, where they studied at the Conservatoire de Paris?

ANSWER: **France** <Auditory Fine Arts–Maiorana>

A long hiking trail named after this mountain range starts at Springer Mountain in Georgia and ends at Mt. Katahdin in Maine. For 10 points each:

[E] Name this long mountain range spanning the eastern United States.

ANSWER: **Appalachian** Mountains

[M] Many hikers along the Appalachian Trail take cautionary measures to protect against the “deer” type of these arachnid pests, which spread Lyme disease.

ANSWER: **ticks**

[H] Hiking is also popular in this subrange of the Appalachians, that names a national park in Tennessee and North Carolina.

ANSWER: **Smoky** Mountains [or **Smokies**; accept **Great Smoky Mountains** National Park]

<Geography–Sareddy>

7. According to Vafthrudnir, hiding in this location allows Lif and Lifthrasir to survive Fimbulwinter. The squirrel Ratatosk relays messages between the serpent Nidhogg and an eagle at the top of this location, beneath which lies (*) Mimir’s well. In order to obtain the runes, Odin hangs himself from this object for nine days. For 10 points, name this world tree that connects the nine worlds in Norse mythology.

ANSWER: **Yggdrasil** [accept **Hoddmimis holt**; accept **World Tree** before mention] <Mythology–Ganguli>

A thunderstorm is depicted in one movement of this suite. For 10 points each:

[M] Name this collection of four violin concertos, including “Spring” and “Winter”.

ANSWER: The **Four Seasons** [accept Le **Quattro Stagioni**]

[E] The Four Seasons was composed by Antonio Vivaldi, a composer from this modern-day country. Vivaldi lived and worked in this country’s city of Venice for much of his life.

ANSWER: **Italy**

[H] The only remaining piece in this genre composed by Vivaldi is titled *Juditha Triumphans*. Handel’s *Messiah* is an example of this genre.

ANSWER: **oratorio** <Auditory Fine Arts–Maiorana>

8. **One poem of this type tells the title bird “thou wast not born for death” and asks “do I wake or sleep?” Another poem of this type calls the title object an “unravish’d bride of quietness” and declares “beauty is truth, truth beauty.” Those poems of this type by John Keats are about a (*) nightingale and a Grecian urn. For 10 points, name this poetic form that is written in praise of something.**

ANSWER: **odes** [accept **Ode** On a Grecian Urn or **Ode** to a Nightingale] <British Literature–Ganguli>

All but one of this man’s laws were repealed by his successor, Solon. For 10 points each:

[H] Name this man, who developed a harsh Athenian law code. This man’s name is often used to describe laws that are excessively severe.

ANSWER: **Draco** [or **Draconian** laws]

[M] Under Solon, all Athenian citizens were allowed to participate in the *ekklesia* assembly that met in a building southwest of this elevated part of the city, which is home to the Parthenon.

ANSWER: **Acropolis**

[E] Another lawgiver, Cleisthenes, is known as the father of the Athenian form of this system of government, in which the people have a say in the government.

ANSWER: **democracy** <Ancient/Other History–Kapadia>

9. **This dynasty was briefly interrupted by Wang Mang’s Xin Dynasty. The *Records of the Grand Historian* was written during this dynasty, which was founded by Liu Bang after the fall of the Qin Dynasty. This dynasty was weakened by the (*) Yellow Turban Rebellion, leading to the tumultuous Three Kingdoms Period. For 10 points, what Chinese dynasty shares its name with China’s majority ethnic group?**

ANSWER: **Han** Dynasty <Ancient/Other History–Kapadia>

Christiaan Huygens invented a clock using this type of simple harmonic oscillator. For 10 points each:

[E] Name these devices, consisting of a suspended mass on a string that swings back and forth.

ANSWER: **pendulums**

[M] Another type of simple harmonic oscillator is a mass on this type of device, which stores mechanical energy in a coil. These devices usually obey Hooke’s Law.

ANSWER: **springs**

[H] The Spring constant in Hooke’s law is typically symbolized with this letter, which also can symbolize Boltzmann’s constant.

ANSWER: **k** <Physics–Chae>

10. **The fischer version of this technique is used to detect water. Diagrams in this technique contain regions that can be explained by the Henderson-Hasselbalch equation. Bromothymol blue and phenolphthalein (*) are indicators used to determine the equivalence point in this technique. Instruments for this technique include the burette and stopcock. For 10 points, name this technique which can be used to determine the concentration of an acid or base.**

ANSWER: **Titration** <Chemistry–Sivaram>

Answer the following questions related to conflicts between Native Americans and colonists in early colonial America. For 10 points each:

[H] “The Great Swamp Fight” occurred during this conflict with the Wampanoag. This conflict’s namesake changed his name from Metacomet to an English name after his father died.

ANSWER: **King Philip’s War** [or **Metacomet’s War** before mentioned]

[E] The Great Swamp fight occurred in this New England colony, which later became the U.S.’s smallest state.

ANSWER: Colony of **Rhode Island** and Providence Plantations

[M] The namesake tribe of the earlier Pequot War was from this state, whose colony was founded by Thomas Hooker when he merged the Saybrook and New Haven colonies.

ANSWER: **Connecticut** <American History–Kapadia>

11. The original Legoland park can be found in this country’s city of Billund. This country’s mainland is part of the Jutland Peninsula. This country’s capital is home to the Tivoli Gardens and lies across the Oresund Strait from Malmo, (*) Sweden. A Hans Christian Andersen story inspired the Little Mermaid Statue in the capital of this Scandinavian country. For 10 points, name this country north of Germany, whose capital is Copenhagen.

ANSWER: **Denmark** <Geography–Sareddy>

Protesters for this cause held up banners like “Kaiser Wilson, have you forgotten your sympathy” while picketing the White House. For 10 points each:

[H] Alice Paul’s NWP organized the Silent Sentinels to protest for what cause?

ANSWER: **women’s suffrage**

[E] Women’s suffrage was officially granted by what amendment to the Constitution?

ANSWER: **19th** Amendment

[M] Women’s suffrage was first granted in the territory that became this western state, also home to the U.S.’s first national park.

ANSWER: **Wyoming** <American History–Kapadia>

12. Circular lights are reflected by a window behind a woman drinking coffee in one painting by this artist. A sign for the title food is visible outside a window in this artist’s *Chop Suey*. In another painting by this artist, three customers sit behind a bar below a sign advertising (*) 5-cent Phillies cigars. That painting depicts a diner in Greenwich Village at night. For 10 points, name this American artist who painted *Nighthawks*.

ANSWER: Edward **Hopper** <Visual Fine Arts–Maiorana>

This collection of stories includes the tiger Shere Khan. For 10 points each:

[E] Name this collection of stories about animals that includes “Rikki-Tikki-Tavi”. Mowgli and Baloo also appear in this collection.

ANSWER: *The **Jungle Book***

[M] *The Jungle Book* is by this author, who also wrote “The White Man’s Burden.”

ANSWER: Rudyard **Kipling**

[H] In “Rikki-Tikki-Tavi,” the title mongoose kills two of these animals, named Nag and Nagaina.

ANSWER: **snakes** <British Literature–Ganguli>

13. The Flynn effect describes how measures of this concept have increased over time. A test initially created to measure this concept in children is called the Stanford-Binet test. People with high values of this concept can join organizations like (*) MENSA. Around 100 is an average score for a namesake “quotient” of this concept. For 10 points, what concept is a measure of how smart a person is?

ANSWER: **intelligence** [accept **IQ** or **intelligence quotient**] <Social Science–Ganguli>

The final holder of this title was Tokugawa Yoshinobu. For 10 points each:

[M] Prior to an 1868 restoration of imperial rule, what title was held by military rulers of Japan?

ANSWER: **Shogun**

[H] Following the aforementioned restoration, Emperor Meiji moved his capital from this city to Tokyo. This city was the imperial capital of Japan for nearly one thousand years prior.

ANSWER: **Kyoto**

[E] Upon taking the throne, Meiji promulgated the Charter Oath, considered to be Japan's first one of these governing documents of a country.

ANSWER: **constitution** <World History–Rao>

14. In one play by this author, the title character is blackmailed by Judge Brack and burns Eilert Lovborg's manuscript. This playwright of *Hedda Gabler* wrote another play in which Krogstad tries to blackmail the protagonist regarding a forged loan. That play by this author ends with a (*) door being slammed in Torvald's face by Nora Helmer. For 10 points, name this Norwegian playwright of *A Doll's House*.

ANSWER: Henrik **Ibsen** <European Literature–Ganguli>

This author wrote about Bunny Ross in his novel *Oil!*, which inspired the film *There Will Be Blood*. For 10 points each:

[H] Name this author, who described how Jurgis Rudkis goes to jail after attacking Phil Connor in one novel.

ANSWER: Upton **Sinclair**

[M] Jurgis Rudkis appears in this muckraking novel by Upton Sinclair that exposed the horrors of the meatpacking industry. This novel inspired the passage of the Food and Drug Act.

ANSWER: *The **Jungle***

[E] *The Jungle* ends with the declaration that “[this city] will be ours!” This largest city in Illinois is described as the “hog butcher of the world” in a Carl Sandburg poem.

ANSWER: **Chicago** [accept “**Chicago** will be ours!”] <American Literature–Ganguli>

15. This empire was modernized by the 19th century Tanzimat reforms. Young Christian boys were forced into this empire's elite Janissary corps. This empire, referred to as the “sick man of Europe,” reached its peak under (*) sultan Suleiman the Magnificent. The end of World War I brought on the dissolution of, for 10 points, what Islamic empire centered on modern day Turkey?

ANSWER: **Ottoman** Empire <World History–Kapadia>

The background of this painting was modeled on a house in Eldon, Iowa. For 10 points each:

[M] Name this Grant Wood painting of a man holding a pitchfork and a sideways-glancing woman.

ANSWER: ***American Gothic***

[E] The title of *American Gothic* refers to a Gothic-style one of these architectural elements, which can be seen behind the central figures. Churches often feature “stained-glass” examples of these elements.

ANSWER: **windows** [accept stained-glass **windows**]

[H] *American Gothic* won \$300 for placing third in a competition hosted by this midwestern art museum, where the painting now resides. This art museum on Michigan Avenue also houses Edward Hopper's *Nighthawks*.

ANSWER: **Art Institute of Chicago** <Visual Fine Arts–Maiorana>

16. It's not humans, but the H5N1 variant of Influenza primarily affects these animals. These animals have a honeycomb bone structure to preserve durability while remaining light. These animals have a vocal organ without vocal flaps called a (*) syrinx. One feature of these types of animals has semiplume, bristle, and down varieties. For 10 points, name these flying animals that evolved from dinosaurs and have feathers.

ANSWER: **birds** [accept **aves** or **avians**] <Biology–Feldman>

In 2020, this organization brought its “worm” logo out of retirement, though it still uses the “meatball” as its primary logo. For 10 points each:

[E] Name this US agency, known for its research in space.

ANSWER: **NASA** [accept **National Aeronautics and Space Administration**]

[H] In 2022, the first full color photograph from this NASA telescope was released. Also known as the Next Generation Space Telescope, it was launched in December 2021.

ANSWER: James **Webb** Space Telescope

[M] As a part of NASA’s Commercial Crew Program, this company designed the CST-100 Starliner. This corporation is best known for manufacturing airplanes, including the 737 and 747.

ANSWER: **Boeing** <Current Events–Chae>

17. In 2019, the company behind this game partnered with Louis Vuitton to create in-game skins. Characters from this game feature in the fictional K-pop group K/DA and the heavy metal band (*) Pentakill. Champions from this game such as Vi and Jinx are featured in a show based on this game, called *Arcane*. For 10 points, name this free MOBA made by Riot Games, often abbreviated LoL.

ANSWER: **League** of Legends [accept **LoL** until mention] <Popular Culture–Chae>

Nodules in these structures can harbor *Rhizobia* bacteria, which aid in nitrogen fixation. For 10 points each:

[E] Name these plant structures, that are contrasted with shoots. These structures anchor the plant in the ground and aid in water absorption.

ANSWER: **roots**

[H] Roots can associate with the hyphae of another kingdom of organisms to form these symbiotic associations, which can be divided into “arbuscular” and “ecto” varieties.

ANSWER: **mycorrhizae**

[M] Mycorrhizae are composed of plants and organisms from this kingdom. A unicellular organism from this kingdom is known commonly as baker’s yeast.

ANSWER: **fungus** [accept **fungi**] <Biology–Kodali>

18. During this conflict, George Dewey gave the order “You may fire when ready” at the Battle of Manila Bay. The U.S.’s entry into this conflict was influenced by sensational “yellow journalism” coverage of the sinking of the (*) *USS Maine* in Havana harbor. Theodore Roosevelt led the Rough Riders during, for 10 points, what 1898 conflict that gave the U.S. control of Cuba and the Philippines?

ANSWER: **Spanish-American** War <American History–Kapadia>

Madonna purchased an NFT, or non-fungible token, named for one of these animals for over \$500,000. For 10 points each:

[M] Name these animals that are called “bored” in a NFT collection titled for their “yacht club.” That NFT collection of these animals was built on the Ethereum blockchain.

ANSWER: **Apes** [accept Bored **Ape** Yacht Club; prompt on **monkeys** with “what type of monkey?”]

[E] Ethereum generates one type of this currency as a reward to miners for adding blocks to the blockchain. Other examples of this type of currency include Bitcoin.

ANSWER: **crypto**currency

[H] A bridge between Ethereum and this cryptocurrency has been proposed by its co-founder, Billy Markus, to enable non-fungible purchases. This cryptocurrency, which was originally created to poke fun at Bitcoin, uses an image of a Shiba Inu as its logo.

ANSWER: **Doge**coin <Other Academic/Miscellaneous–Ganguli>

19. This author called Joseph Conrad a “bloody racist” in his essay *An Image of Africa*. In a novel by this author, the protagonist beats his wife during the Week of Peace and is exiled for seven years from Umuofia after killing his adopted son, (*) Ikemefuna. That novel by this author ends with the suicide of Okonkwo. For 10 points, name this Nigerian author of *Things Fall Apart*.

ANSWER: Chinua **Achebe** <World Literature–Ganguli>

Georg Cantor's diagonal argument claims that this set of numbers is uncountable. For 10 points each:

[M] Name this set of numbers, that includes both rational and irrational numbers.

ANSWER: **real** numbers

[E] The imaginary part of a complex number is a real number multiplied by this number, which is equal to the square root of negative one.

ANSWER: ***i*** [accept **imaginary unit**]

[H] This theorem states that every non-constant, single-variable polynomial with coefficients that are complex has one or more complex roots.

ANSWER: the **Fundamental Theorem** of **Algebra** [accept **d'Alembert's theorem**] <Other Science–Chae>

20. Asaph Hall used white spots on this planet to determine its rotational period. The Encke and Keeler Gap are structures in this planet's A ring, and, in 1655, Christiaan Huygens discovered its largest moon, (*) Titan. Giovanni Cassini discovered and names a divide in a feature of this planet. This planet is the second largest planet in the solar system, and it is the sixth planet from the Sun. For 10 points, name this gas giant with several large rings.

ANSWER: **Saturn** <Other Science–Chae>

This organization's Article 5 considers an attack on one of its members to be an attack on all of its members. For 10 points each:

[M] Name this military alliance formed by the United States and its allies in Western Europe in order to counter Soviet aggression during the Cold War.

ANSWER: **NATO** [or **North Atlantic Treaty Organization**]

[E] In response to NATO, the Soviet Union formed its own military alliance with Eastern Bloc countries, a “Pact” named for this capital of Poland.

ANSWER: **Warsaw** [accept **Warsaw Pact**]

[H] NATO was criticized for high civilian casualties during its 1999 intervention in this former country. This country, which encompassed many modern Balkan nations, was led by Josip Tito for much of its existence.

ANSWER: Federal Republic of **Yugoslavia** <European History–Rao>