

2022-23 Solon-Adjacent Novice Set (SANDS)

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Packet 11

1. **Studies created by the artist of this painting in preparation for it include a scene of a cypress tree in a field of wheat. The artist of this painting painted a similar version of its central scene set “Over the Rhone”. A church spire and an imaginary village in (*) Saint-Rémy is visible in this painting, which was created from the artist’s asylum window. For 10 points, name this painting of a swirling blue sky, created by Vincent Van Gogh.**
ANSWER: The **Starry Night** Over the Rhone <Visual Fine Arts–Maiorana>

Neil Bartlett was the first to synthesize a square planar molecule with one member of this group of elements at its center. For 10 points each:

[E] Name this group that is often labeled as “inert.” They are located on the far right of the periodic table.

ANSWER: **noble** gasses [accept **Group 18**]

[H] Neil Bartlett experimented with a reaction involving platinum hexafluoride and this element, which resulted in the first noble gas compound to be synthesized. This element was isolated by Sir William Ramsay and has atomic number 54.

ANSWER: **Xenon**

[M] All noble gasses except Helium have a filled subshell of this type of orbital. These orbitals can fit up to six electrons.

ANSWER: **p** orbital <Chemistry–Chae>

2. **Part of an annual race in this state follows the path of a 1925 diphtheria serum run to its city of Nome. A large species of brown bear is endemic to this state’s Kodiak Island. This state’s Seward Peninsula contains the finish line of the annual (*) Iditarod sled dog race, which previously began in Anchorage. This is the largest state in the U.S. For 10 points, name this non-contiguous state with its capital at Juneau.**

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

Two of these people are thought to be the dedicatees of the songs “Pastime with Good Company” and “Greensleeves.” For 10 points each:

[E] Name this group of six women, who were each married to a Tudor King of England at one point. A popular rhyme used to memorize the fates of these people goes “Divorced, beheaded, died; Divorced, beheaded, survived.”

ANSWER: **wives of Henry VIII** [or **queen** consorts of **Henry VIII**; accept **spouses** of **Henry VIII** or **people married to Henry VIII** until mentioned; prompt on **wives of Henry**]

[M] Three of Henry’s wives shared this first name. Henry’s first wife, a princess of Aragon, had this name, as did two wives from the Parr and Howard families.

ANSWER: **Catherine** [accept **Catherine** of Aragon or **Catherine** Parr or **Catherine** Howard]

[H] The annulment of Henry and Catherine of Aragon’s marriage was secured by an advisor with this surname. A Lord Protector of England with surname jointly led the New Model Army.

ANSWER: **Cromwell** [accept Thomas **Cromwell** or Oliver **Cromwell**] <European History–Kapadia>

3. **This is the number of resistors in a Wheatstone bridge. Superfluidity was discovered in an isotope of Helium with this number, which is also the number of Maxwell's electromagnetic equations. Along with spatial dimensions, time can be considered a (*) dimension with this number, the number of fundamental interactions in the Standard Model. For 10 points, Beryllium has what atomic number, the number of sides in a square?**

ANSWER: **four** <Physics–Chae>

This character is described as having “sharp teeth” and “pointed ears” in a novel that begins with Jonathan Harker’s journey to his castle. For 10 points each:

[M] Name this title character of a Bram Stoker novel. This Transylvanian noble bites Lucy Westenra, causing her to become one of the “un-dead.”

ANSWER: Count **Dracula**

[E] Dracula is one of these creatures that are said to feed on human blood. Garlic is said to ward off these creatures that avoid sunlight.

ANSWER: **Vampires**

[H] An invisible Brazilian vampire is the subject of this author’s story “Le Horla.” This author described Mathilde Loisel losing the title object in “The Necklace.”

ANSWER: Guy de **Maupassant** <European Literature–Ganguli>

4. **A ritual during this practice sees participants walk around a fire seven times. After this practice has been completed, women apply red sindoor powder to their foreheads along with *bindi*, a colored red dot. The father gives away his daughter in this practice, during which (*) promises are made to keep a home and raise a family.**

Vows of love are exchanged during, for 10 points, what practice that involves a bride and groom?

ANSWER: Hindu **marriage** [accept Hindu **weddings**] <Religion–Ganguli>

This country’s regime likely published the article “Muddle Instead of Music”. For 10 points each:

[M] Name this country that criticized the music of Dmitri Shostakovich in favor of that of others, like Nikolai Myaskovsky.

ANSWER: **Soviet Union** [accept **USSR**, prompt on **Russia**]

[H] The USSR had a love-hate relationship with this Armenian composer of the ballet *Gayane*, which includes a “Sabre Dance”.

ANSWER: Aram **Khachaturian**

[E] Despite his denunciation, Shostakovich later received the Stalin prize for his Leningrad Symphony, which premiered in 1942, during this war.

ANSWER: **World War II** [accept clear equivalents] <Auditory Fine Arts–Maiorana>

5. **In 1998, al-Qaeda bombed two U.S. examples of these buildings in Nairobi and Dar-Es Salaam. After a revolution brought Ayatollah Khomeini to power, militant students seized one of these buildings in Tehran, causing a (*) “hostage crisis” that lasted 444 days. Country capitals are home to many “foreign” examples of, for 10 points, what kind of buildings, the workplace of diplomats and ambassadors?**

ANSWER: **embassy** [accept U.S. **embassy**] <World History–Kapadia>

Gustav Kirchhoff names a set of laws that can be used to solve for quantities in DC examples of these systems. For 10 points each:

[E] Name these electronic systems which consist of electrical components, such as batteries and resistors, connected by wires.

ANSWER: **circuits**

[H] One of Kirchhoff's laws states that the current into these parts of the circuit is equal to the current leaving them. It can be used alongside the loop rule to solve complex circuits.

ANSWER: **junction** [accept node or point; prompt on descriptive answers like intersections]

[M] If a circuit consists only of resistors and a battery, it can be solved by creating an equivalent resistor. Resistances can be added directly if they are in this conformation, which contrasts with parallel.

ANSWER: **series** <Physics–Kodali>

6. In one novel by this author, John visits the island of San Lorenzo, the home of a religion called Bokononism. This author, who created the fictional author Kilgore Trout, wrote another novel in which Montana Wildhack is imprisoned in a zoo on (*) Tralfamadore. In that novel by this author, Billy Pilgrim becomes “unstuck in time” and survives the firebombing of Dresden. For 10 points, name this author of *Slaughterhouse-Five*.

ANSWER: Kurt **Vonnegut** <American Literature–Ganguli>

The game of *chunkey* was created by a civilization named for this river. For 10 points each:

[H] Name this river, which names an ancient culture known for their multiple burial mounds, including one at Cahokia.

ANSWER: **Mississippi** River [or **Mississippian** Culture]

[E] The Mississippian Culture was located in this present-day country, whose indigenous groups include the Sioux and Cherokee.

ANSWER: **United States** of America [or **U.S.A.** or **U.S.** or **America**]

[M] Like *chunkey*, this sport was also created by Native Americans. Modern players of this game use a stick with a hoop net at its end to carry and shoot a hard rubber ball into goals.

ANSWER: **lacrosse** <Ancient/Other History–Sareddy>

7. Lucius Clay organized Operation Vittles to deliver supplies to a portion of this city. Checkpoint Charlie was the best-known location for crossing a structure in this city. A two-year Soviet blockade of this city was countered by its namesake (*) “Airlift.” Ronald Regan asked Mikhail Gorbachev to “tear down” a structure in this city. For 10 points, a wall separated the capitalist West from the communist East portion of what German capital?

ANSWER: **Berlin** [accept **Berlin** Airlift or **Berlin** Wall] <European History–Kapadia>

In this film, a movie producer wakes up to find the severed head of his prized stallion in his bed after he doesn't comply with “an offer he can't refuse.” For 10 points each:

[M] Name this 1972 film by Francis Ford Coppola, starring Al Pacino and Marlon Brando, that centers on the Corleone crime family. Michael takes on the title role of this film from his father, Don Vito.

ANSWER: *The* **Godfather**

[E] *The Godfather* depicts the life of members of this Italian crime organization originating from Sicily. Members of this organization refer to it as *La Cosa Nostra*, or “our thing.”

ANSWER: the Sicilian **Mafia** [or the **Mob**; accept *La Cosa Nostra* before mentioned]

[H] This other mafia film, which stars Ray Liotta, Joe Pesci, and Robert De Niro, depicts the rise and fall of mobster Henry Hill, who goes into Witness Protection at the end of the film.

ANSWER: **Goodfellas** <Popular Culture–Kapadia>

8. In one poem, this man is compared to a “powerful western fallen star.” This man, who is described as “fallen cold and dead” in another poem, is the subject of “When Lilacs Last in the Dooryard Bloom’d” and “O Captain! My Captain!” Those two poems about this man appear in the collection (*) *Leaves of Grass* by Walt Whitman. For 10 points, name this president, who was assassinated toward the end of the Civil War.

ANSWER: Abraham Lincoln <American Literature–Ganguli>

A sculpture featuring one of these animals in St. Petersburg’s Senate Square depicts Peter the Great. For 10 points each:

[E] What animals are featured being ridden by humans in equestrian statues?

ANSWER: horses

[H] That aforementioned sculpture was created by Étienne Falconet out of this material. Artists who sculpt in this material may use plaster molds and the “lost wax” method to “cast” it.

ANSWER: bronze

[M] Along with Falconet, this other French artist often sculpted in bronze. This artist’s bronzes include *The Burghers of Calais* and *The Thinker*.

ANSWER: Auguste Rodin <Other Fine Arts–Maiorana>

9. The arithmetic, geometric, and harmonic means are collectively known as this man’s namesake means. Expressions such as “Sine squared plus Cosine squared equals one” are called his namesake identities. Three positive integers that fit this man’s namesake theorem are called his (*) “triples.” For 10 points, name this person who names a theorem that relates a right triangle’s hypotenuse to its other sides, often written as “ $a^2+b^2=c^2$.”

ANSWER: Pythagoras [accept Pythagorean] <Other Science–Chae>

Answer the following questions about European clock towers. For 10 points each:

[M] The Elizabeth Tower is the official name of this clock tower, which lies at the north end of London’s Palace of Westminster. This clock tower is commonly known by a nickname that refers to its largest bell.

ANSWER: Big Ben [accept Elizabeth Tower before mentioned]

[H] This city’s clock tower, in the north of its Piazza San Marco, features the winged lion of its patron saint, Mark, with an open book against a blue background with gold stars.

ANSWER: Venice

[E] The astronomical clock in this city’s Old Town Hall is the oldest clock still in operation. This city is the capital of the Czech Republic.

ANSWER: Prague [or Praha] <Geography–Kapadia>

10. During one of these events, an anarchist attempted to assassinate Carnegie Steel Chairman Henry Clay Frick. Eugene Debs was imprisoned for his role in one of these events involving the Pullman Company. Pinkerton agents were called in to break up one of these events at the (*) Homestead Steel Works. The rise in organized labor increased the frequency of, for 10 points, what events, where workers stop working to achieve a collective goal?

ANSWER: labor strikes [accept Pullman Strike or Homestead Strike] <American History–Kapadia>

One member of this profession is a drag queen who takes care of Prior Walter. For 10 points each:

[E] Name this profession of Belize in *Angels in America*. It’s not a doctor, but, in Ken Kesey’s *One Flew Over the Cuckoo’s Nest*, Ratched has this profession, whose members take care of patients in hospitals.

ANSWER: nurse

[H] *Angels in America* is by this playwright, who also wrote *A Bright Room Called Day*.

ANSWER: Tony Kushner

[M] An epidemic regarding this disease is central to *Angels in America*. Roy Cohn hoards AZT to treat this disease.

ANSWER: AIDS <American Literature–Ganguli>

11. **Early varieties of these objects used cathode-ray tubes and rounded fluorescent panels. Some of these devices use a thin layer of plasma or liquid crystals, which allow them to be flat. Newer versions of these objects include the** (*) OLED variety, which is branded by Apple as the Retina one of these devices. For 10 points, name these devices that produce images, often found on phones, televisions, and computers.

ANSWER: **screens** [accept **displays**, prompt on any specific device by asking “what specific part of the device?”]
<Other Academic/Miscellaneous–Maiorana>

This general’s “neckties” were formed using railroad rails he destroyed in one campaign. For 10 points each:

[M] Name this general, who made use of scorched earth tactics in his “March to the Sea”.

ANSWER: William Tecumseh **Sherman**

[H] The “March to the Sea” ended in this city. During the Revolutionary War, Casimir Pulaski died while leading a cavalry charge during a siege of this large port city.

ANSWER: **Savannah**

[E] Sherman’s “March to the Sea” took place primarily in this Confederate state, whose capital of Atlanta was burned down during the campaign.

ANSWER: **Georgia**

<American History–Sareddy>

12. **This artist claims “I’ll sink my teeth in disbelief ‘cause you’re the one that I want” in “Love Again.” In another song, this artist repeatedly says “if you don’t wanna see me dancing with somebody.” The line “if you wanna run away with me, I know a** (*) galaxy And I can take you for a ride” begins a song that appears on this artist's album *Future Nostalgia*. For 10 points, name this Albanian-English singer of “Don’t Start Now” and “Levitating.”

ANSWER: Dua **Lipa** <Popular Culture–Ganguli>

This author wrote a collection of stories narrated by pilgrims at the Tabard Inn. For 10 points each:

[M] Name this author of *The Canterbury Tales*.

ANSWER: Geoffrey **Chaucer**

[E] A “middle” form of this language was used to write *The Canterbury Tales*. William Shakespeare used an “early modern” form of this language.

ANSWER: Middle **English** [accept Early Modern **English**]

[H] In *The Canterbury Tales*, the Wife of Bath relates the story of one of these people who are told to find “what women most desire.” Another of these people tell a story about Arcite and Palamon.

ANSWER: **knights** [accept “The **Knight’s Tale**”] <British Literature–Ganguli>

13. **This instrument is played by composer of the Pulitzer Prize-winning oratorio *Blood on the Fields*, Wynton Marsalis. The tracks “So What” and “Freddie Freeloader” appear on an album by a player of this instrument. A “bent” version of this instrument was played by** (*) Dizzy Gillespie. This instrument was played by Miles Davis. For 10 points, name this valved brass instrument, whose players produce sound by “buzzing” into its mouthpiece.

ANSWER: **trumpet** <Other Fine Arts–Maiorana>

In his pseudo-historical book *1421*, Gavin Menzies claimed that an explorer from this dynasty visited the Americas before Christopher Columbus. For 10 points each:

[M] Name this Chinese dynasty, renowned for its blue and white porcelain, which succeeded the Yuan dynasty and preceded the Qing dynasty.

ANSWER: **Ming** dynasty

[H] The aforementioned explorer, Zheng He, brought exotic animals to China from the East African coast with this name. The Bantu language of this name is the most widely spoken in Africa.

ANSWER: **Swahili** [or **Kiswahili**; accept **Swahili** Coast]

[E] Zheng He made his massive voyages using junks, a type of this vessel. Lateen sails helped merchants and sailors cross the Indian Ocean in these vessels during monsoon season.

ANSWER: **ships** [or **boats**] <World History–Sareddy>

14. The eruption of a volcano on the island of Thera contributed to the collapse of this civilization, which used the Linear A writing system. Several bull-leaping frescoes were excavated from this civilization's palace at (*) Knossos. A mythical Greek king who built the Labyrinth to contain a half-man, half-bull monster names, for 10 points, what Bronze Age civilization centered on the island of Crete?

ANSWER: **Minoan** Civilization <Ancient/Other History–Kapadia>

At the end of this process, the subject either continues to the Field of Reeds or their soul is devoured by Ammit. For 10 points each:

[H] Name this process in the Egyptian afterlife, where one of the subject's organs is compared against the feather of Maat.

ANSWER: **weighing of the heart** [or **judging the dead**]

[M] The weighing of the heart is overseen by this jackal-headed Egyptian god of the afterlife, who also presides over the mummification process.

ANSWER: **Anubis**

[E] Ammit, the devourer of souls, has the head of one of these reptiles, whose snout shape differentiates them from alligators.

ANSWER: **crocodile** [or **croc**] <Mythology–Kapadia>

15. This figure was so large that it took five giant storks to deliver him to his parents. While mourning the death of a companion he meets during the Winter of the Blue Snow, this figure's tears created the Missouri River. This companion of (*) Babe the Blue Ox is said to have created the Grand Canyon by dragging his ax on the ground. For 10 points, name this giant lumberjack of American folklore.

ANSWER: Paul **Bunyan** <Mythology–Ganguli>

Dogs were likely the first species to undergo this process. For 10 points each:

[M] Name this process, in which animals adapt to a sustained relationship with humans. This process is very similar to, but not to be confused with, taming an animal.

ANSWER: **domestication**

[E] This domestic species of mammal was valuable to early humans due to their ability to hunt rodents. They are often heard purring or meowing.

ANSWER: **cats** [accept **Felis catus**]

[H] Cats and foxes have a slit type of these features. The slit type of these features allow cats to focus on bright lights without the effect of chromatic aberrations.

ANSWER: slit **pupils** [prompt on **eyes**] <Biology–Chae>

16. **As this quantity increases, solubility increases for solids and decreases for gases. This quantity and volume are directly proportional, according to Charles' law. This quantity is defined as the average kinetic energy (*)** of particles inside a substance. The lowest value for this quantity on one scale is -273.15, but is standardized to 0 on a scale named for Kelvin. For 10 points name this quantity which can be measured in celsius and fahrenheit.

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

Two members of this family named Bertrand and Beatrice are part of the Volunteer Fire Department, or V.F.D. For 10 points each:

[H] Name this fictional family. Count Olaf is the enemy of three children in this family.

ANSWER: **Baudelaire**

[M] The Baudelaires appear in this collection of novels by Lemony Snicket. This collection includes *The Bad Beginning* and *The Reptile Room*.

ANSWER: **A Series of Unfortunate Events**

[E] Violet, Klaus, and Sunny Baudelaire are this type of person because of a fire that burned down their home. One becomes this type of person after both of their parents have died.

ANSWER: **orphans** <Other Literature–Ganguli>

17. **In this state, Benjamin Rush used bloodletting to treat victims of a 1793 yellow fever epidemic. A man in this state published weather predictions and witty aphorisms in *Poor Richard's Almanac*. The largest city in this state hosted the Constitutional Convention in what is now (*) Independence Hall. Benjamin Franklin spent much of his life in, for 10 points, what state, home to the Liberty Bell in Philadelphia?**

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

In this game, players control 16 “pieces” that can move along the 64 square board in certain patterns. For 10 points each:

[E] Name this game that features pieces such as the pawn and the rook, played by Grandmasters such as Magnus Carlsen and Bobby Fischer.

ANSWER: **chess**

[H] This chess move allows a pawn to capture another pawn that has advanced two squares in the same turn. This is the only capturing move in chess where the capturing piece moves to a square not occupied by the captured piece.

ANSWER: **en passant**

[M] This other move used by chess players involves the king and the rook. In this move, a player's king can move two squares in one turn. It can be performed either kingside or queenside.

ANSWER: **castling** [accept **castle**] <Other Academic/Miscellaneous–Chae>

18. **This politician, who was slammed for not responding to a student accusing Israel of “ethnic genocide,” is the author of the picture book *Superheroes are Everywhere*. This politician, who defeated Loretta Sanchez in the 2016 California Senate election, exclaimed (*) “Mr. Vice President, I'm speaking”, after being repeatedly interrupted by Mike Pence during a debate. For 10 points, name this current vice president of the U.S.**

ANSWER: Kamala Devi **Harris** <Current Events–Ganguli>

These structures have “do while”, “while”, and “for” varieties in one language. For 10 points each:

[M] Name these programming constructs that allow for the repetition of a specified block of code.

ANSWER: **loops**

[E] In Java, a “while” loop will end if the given condition has this property. Statements with this property, such as “1 == 2”, are contrasted with true statements.

ANSWER: being **false**

[H] “For” loops are often used to iterate over these data structures, which in Java can be indexed using square brackets.

ANSWER: **arrays** [prompt on List] <Other Science–Maiorana>

19. One character in this novel, who spends time making golden fish, has seventeen sons that share his name. At the end of this novel, a baby with a pig’s tail is eaten by ants, and the parchments of Melquiades are deciphered by (*) Aureliano before a storm destroys the town of Macondo. For 10 points, name this novel about the Buendia family, titled for a century of isolation, by Gabriel García Márquez.

ANSWER: ***One Hundred Years of Solitude*** [accept ***Cien Años de Soledad***] <World Literature–Ganguli>

The Guinness Storehouse is the origin of the dry stout, one type of this drink. For 10 points each:

[M] Name this beverage, which is typically brewed by fermenting malted wheat or barley.

ANSWER: **beer**

[E] The breweries of the Guinness Storehouse can be found in Dublin, the capital of this island country west of Great Britain.

ANSWER: **Ireland**

[H] Over 7 million liters of beer are served annually at the Oktoberfest beer festival in this southeast German city. This city is the capital of the state of Bavaria.

ANSWER: **Munich** [or **Munchen**] <Geography–Sareddy>

20. This molecule is theorized to have been the first sign of life on earth in its namesake “world hypothesis”. The small interfering type of this molecule is involved in post-transcriptional gene silencing. A certain type of this molecule has a cloverleaf shape and is used to (*) transfer amino acids. This molecule uses the nucleotide Uracil instead of thymine, which DNA uses. For 10 points, name this nucleic acid that is created via transcription.

ANSWER: **RNA** <Biology–Feldman>

A variant of this thought experiment involving pushing a “fat man” was created by Judith Thompson. For 10 points each:

[E] Name this philosophical dilemma, in which pulling a lever can make the namesake vehicle kill only one person instead of five.

ANSWER: **trolley** problem

[M] Proponents of this ethical theory based on the “greatest happiness for the greatest number” would argue to pull the lever. This school of philosophy is supported by John Stuart Mill and Jeremy Bentham.

ANSWER: **utilitarianism**

[H] Unlike utilitarianism, proponents of deontological ethics would argue to do nothing. This German thinker used the categorical imperative as the basis for deontology in *The Groundwork of the Metaphysics of Morals*.

ANSWER: Immanuel **Kant** <Philosophy–Ganguli>