

2022 KICKOFF Novice

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Packet 8N: "I used to be a fan, but after this masterpiece I'm a whole air conditioner."

Tossups

1. Gormlaith Gaunt died in a battle in this country, after which a militia of Pukwudgies began freeloading at this country's school of Ilvermorny. In this country, Tina Goldstein investigated a lunatic No-Maj who abused Credence Barebone, an Obscurus targeted by Gellert Grindelwald. (*) Newt Scamander is the protagonist of a movie mostly set in this country, *Fantastic Beasts and Where to Find Them*. For 10 points, name this country many wizards fled to aboard the *Mayflower*.

ANSWER: United States of America [or America; or the U.S.A.; or equivalents, such as 'Merica]
<Riley, Pop Culture>

2. This quantity, and temperature, are held constant in a Carnot cycle. In statistical mechanics, this quantity equals Boltzmann's constant times the natural log of the number of microstates. The second law of thermodynamics states that this quantity cannot (*) decrease over time. For 10 points, name this quantity, symbolized S, which measures the amount of disorder of a system.

ANSWER: entropy [prompt on S before it is read]
<Wu, Physics>

3. A revolutionary born in this country had his photo taken after the La Coubre explosion by Alberto Korda. This country's *descamisados* were bombed in its Plaza de Mayo in 1955. A regime in this country waged the (*) "Dirty War" against its political opponents under Jorge Videla, and later went to war with Britain over the Falkland Islands. For 10 points, name this country led by Juan Peron from a pink palace in Buenos Aires.

ANSWER: Argentina [or Argentine Republic; or Republica Argentina]
<Riley, World History>

4. A gambler in this novel, who wears cufflinks made of human molars, fixed the 1919 World Series. In this novel, a billboard with the eyes of T.J. Eckleberg appears in the "Valley of Ashes." In this novel, the title (*) character is blamed for the death of Myrtle Wilson, who was actually killed by the drunk Daisy Buchanan. For 10 points, name this novel set in West Egg and narrated by Nick Carraway, written by F. Scott Fitzgerald.

ANSWER: The Great Gatsby
<Ganguli, American Literature>

5. In the Greco-Roman underworld, the river Phlegathon is made of this substance. At Ragnarok, Freyr is prophesied to be killed by a giant hailing from the realm of this phenomenon, Muspellheim. The Titan (*) Prometheus was punished by Zeus for stealing this substance from the gods and giving it to humanity. For 10 points, name this substance symbolized by the phoenix, a mythical bird that rises from its own ashes.

ANSWER: fire
<Palavajhala, Mythology>

6. Decree 172 obligates certain “unfriendly” countries to pay for this resource through the GPB bank. In February 2022, Olaf Scholz suspended a project to transport this resource, the Nord Stream 2. Vladimir Putin has threatened to (*) cut off Europe’s access to this resource if not paid in rubles. For 10 points, the war in Ukraine has led to tensions between the EU and Russia on the import of what colorless, odorless fossil fuel?

ANSWER: natural gas [prompt on gas; or fossil fuels]

<Zhang, Current Events>

7. In one novel by this author, the journalist Walter Bidlake falls in love with the promiscuous Lucy Tantamount. In a novel by this author, humans are cloned using Bokanovsky’s Process. This author of *Point Counter Point* wrote another novel, in which (*) Henry Ford is worshipped in the World State. Other characters in that novel by this author take the drug soma, which is hated by John the Savage. For 10 points, name this British author, who wrote the dystopian novel *Brave New World*.

ANSWER: Aldous Huxley [or Aldous Leonard Huxley]

<Ganguli, British Literature>

8. During the luteal phase, a “surge” of LH stimulates follicles to release these cells, leaving behind a corpus luteum. Three polar bodies are formed alongside one of these cells. These cells may implant themselves into the endometrium lining after traveling down a (*) Fallopian tube. Immature versions of these cells, called oogonia, are produced and stored in the ovaries. For 10 points, name these human cells, which are fertilized by sperm.

ANSWER: egg cells [or ovum; accept oogonia or oogonium; accept oocytes till mention]

<Wu, Biology>

9. One leader in this conflict demanded “England expects that every man will do his duty” before a battle, which names a public square in London. The defeat of Spanish and French fleets in this conflict’s Battle of Trafalgar ended plans to invade Britain. This conflict’s central figure was defeated by the (*) Seventh Coalition, led by the Duke of Wellington. The Battle of Waterloo ended, for 10 points, what conflict, instigated by, and named for, a French emperor?

ANSWER: Napoleonic Wars [accept Wars of the Third, Fourth, Fifth, Sixth, or Seventh Coalition; prompt on Battle of Trafalgar or Battle of Waterloo with “what larger conflict did those occur in?”]

<Riley, European History>

10. This art style was practiced by the Americans Childe Hassam and Mary Cassatt. Louis Leroy coined this movement’s name while insulting a painting of a sunrise above a harbor. An artist in this movement made multiple paintings in different times of day of the (*) Rouen Cathedral and haystacks. That artist in this movement had a garden in Giverny, where he painted water lilies. For 10 points, name this art style practiced by Claude Monet.

ANSWER: Impressionism [or Impressionisme]

<Sarma, Visual Fine Arts>

11. In his *Essay on the Principles of [this quantity]*, Thomas Malthus claimed that this quantity’s growth would cause poverty. The Demographic Transition Model describes this quantity’s growth rate, which equals (*) birth rate minus death rate. In 2023, the U.N. estimates that India will surpass China and have the highest value for this quantity. For 10 points, name this quantity, the number of people in an area.

ANSWER: population [or *Essay on the Principles of Population*]

<Mundhe, Geography>

12. **In college, this quarterback's team upset fifth-ranked Alabama in the 2000 Orange Bowl. In the 2001 NFL playoffs, after this player fumbled against the Oakland Raiders, his team retained possession via the "Tuck Rule." This quarterback was accused of (*) deflating footballs in the "Deflategate" scandal, as was his then-coach, Bill Belichick. For 10 points, name this former New England Patriots quarterback, nicknamed "TB12."**

ANSWER: Tom Brady [or Thomas Edward Patrick Brady, Jr.]

<Riley, Pop Culture>

13. **Since bacterial decomposition of dead matter consumes this molecule, its levels may fall following a harmful algal bloom, creating "dead zones." Hypoxic environments have low levels of this molecule. Plants (*) produce this molecule, alongside glucose, during photosynthesis. For 10 points, name this diatomic molecule, with formula O₂.**

ANSWER: oxygen [accept O₂ before it is read]

<Wu, Earth Science>

14. **Before he got into trains, a company centered around these objects was run by Cornelius Vanderbilt. One business centered around these objects was granted a monopoly by Robert Livingston, which was struck down by the Marshall Court in *Gibbons v. Ogden*. One of these objects, the *Clermont*, was dubbed Robert Fulton's "folly." A (*) James Watt invention led to the creation of these maritime vessels. For 10 points, name these boats, powered by water boiling.**

ANSWER: steamboat [prompt on boat, or synonyms, before "boat" is read]

<Riley, American History>

15. **This instrument's predecessor, the chalumeau, names the first register of this instrument. Players of this instrument can "cross the break" to reach the second "clarion" register. Anton Stadler was the dedicatee of an A major concerto for this instrument by Mozart. Aaron Copland dedicated his concerto for this instrument to (*) Benny Goodman. For 10 points, name this single-reeded woodwind instrument, pitched in B-flat, that is held similarly to the oboe.**

ANSWER: Clarinet

<Qin, Auditory Fine Arts>

16. **Triangular pastries in the shape of a vizier's hat are traditionally eaten on this holiday. On this holiday, that vizier's name is drowned out by noisemakers called groggers. The story of this holiday is told in the Book of (*) Esther, which is called the Megillah when read aloud on it. This holiday falls on the 14th of Adar. For 10 points, name this "Festival of Lots," a Jewish holiday celebrating the defeat of Haman.**

ANSWER: Purim [or Feast of Lots until "Lots" is read; or Festival of Lots until "Lots" is read]

<Palavajhala, Religion>

17. **This city's merchants connected thin lots to create mansions in its Golden Bend neighborhood. Cannabis drinks are sold in "coffee shops" in this city's De Wallen red-light district. This city expanded after the construction of the *grachtengordel*, three canal rings that are today lined with (*) bicycle paths. While this city is its country's nominal capital, most administration occurs in The Hague. For 10 points, name this largest city, and capital, of the Netherlands.**

ANSWER: Amsterdam

<Mundhe, Geography>

18. **Sputter coating is used to apply a thin layer of a conducting material for samples used in one form of this technique. This technique comes in transmission and scanning types, both of which utilize a beam of high-speed electrons. This technique was popularized by Antonie van (*) Leeuwenhoek and Robert Hooke, who used it to discover the cell. For 10 points, name this technique, which uses optical and electron devices to magnify small things.**

ANSWER: **microscopy** [accept word forms; accept more specific answers, like electron **microscopy**]

<Wu, Chemistry>

19. **Clodius Pulcher allegedly dressed as a woman to seduce this man's wife while he was Pontifex Maximus. This man's daughter, Julia, died in childbirth while married to a man who formed the Second Triumvirate with his (*) adopted son. This man may have fathered one of the men who stabbed him on the Senate floor, Marcus Junius Brutus. For 10 points, Cleopatra had a relationship with what man, who was assassinated on the Ides of March?**

ANSWER: Gaius **Julius Caesar** [prompt on Caesar]

<Riley, Ancient History>

20. **A character in one novel by this author sees that reading is "agitated" and "heated," except for reading Homer. In that novel by this author, the title character reads Ossian to his one-sided love; afterward, he commits suicide and is buried under linden trees. In a play by this author, a black (*) poodle transforms into Mephistopheles and makes a deal with the title scholar. For 10 points, name this German author of *The Sorrows of Young Werther* and *Faust*.**

ANSWER: Johann Wolfgang von **Goethe**

<Wang, European Literature>

Bonuses

1. Nina Simone's cover of this song was sampled in the 2013 song "Blood on the Leaves." For 10 points each:
[H] Name this song, in which the title object hangs "from a poplar tree." This song contrasts the "scent of magnolia" with the "smell of burning flesh."

ANSWER: "**Strange Fruit**"

[M] The anti-lynching song "Strange Fruit" was most notably covered by this singer, nicknamed "Lady Day." A 2021 film titled *United States vs. [this singer]* explores her relationship to "Strange Fruit."

ANSWER: Billie **Holiday** [or Eleanora **Fagan**; or *The United States vs. Billie Holiday*]

[E] Before "Strange Fruit," Holiday was a member of the band of Count Basie, a player of this instrument. This instrument has 88 black and white keys.

ANSWER: **piano**

<Mundhe, Other Fine Arts>

2. A recent 1.3 billion IMF loan allowed this country's kwacha to briefly become the world's best performing currency against the dollar. For 10 points each:

[H] Name this first African country to default on foreign debt during the COVID-19 pandemic. This country's capital is Lusaka.

ANSWER: **Zambia** [or Republic of **Zambia**]

[E] Zambia's default has sparked criticism of this country's "debt-trap diplomacy." This country has financed African infrastructure projects through its Belt and Road Initiative under Xi Jinping.

ANSWER: People's Republic of **China** [or **Chung-hua** Jen-min Kung-ho-kuo; or **Zhonghua** Renmin Gongheguo; or **Chung-kuo**; or **Zhongguo**]

[M] IMF agreements may have also contributed to Zambia's debt crisis by barring the government from raising taxes on this resource, despite it making up 64% of Zambian exports. Chile's mining industry is the largest producer of this resource in the world.

ANSWER: **copper**

<Zhang, Current Events>

3. UPenn professor Martin Seligman electrocuted these animals to induce learned helplessness. For 10 points each:

[E] Name these canines studied by Ivan Pavlov.

ANSWER: **dogs**

[M] Pavlov taught dogs to drool at the sound of a bell, demonstrating the classical form of this phenomenon, which is contrasted with its operant form.

ANSWER: classical **conditioning** [accept operant **conditioning**]

[H] B. F. Skinner conditioned these animals to exhibit superstitious behavior, such as head-nodding while waiting for food. Skinner also operantly conditioned these birds to play ping pong and guide missiles.

ANSWER: **Pigeons**

<Palavajhala, Social Science>

4. One subset of this group in Syria is called the Alawites. For 10 points each:

[E] Name this branch of Islam, whose adherents believe Ali to be the true successor to Muhammad. It is the second largest branch of Islam, after Sunni.

ANSWER: **Shia** Islam [or **Shi'ite** Islam]

[M] The Shia Twelvers believe in twelve figures known by this title. Sunni Muslims refer to their Mosque leaders by this title.

ANSWER: **imams**

[H] A hidden imam known by this name is said to appear at the end of the world and establish a final caliphate. A man who claimed to be this figure led a series of Islamic revolts in Sudan.

ANSWER: **Mahdi** [accept **Mahdist** Revolts]

<Palavajhala, Religion>

5. After Spanish decolonization, Mauritania partially administered a territory named after this desert, but later withdrew its forces. For 10 points each:

[H] Name this desert that names a disputed territory, whose eastern part is governed by the Sahrawi people.

ANSWER: **Sahara** Desert [accept **Western Sahara**]

[M] In 2020, the United States recognized this former Spanish protectorate's claim to the Western Sahara, which it mostly administers. This North African country's largest city is Casablanca.

ANSWER: **Morocco**

[E] The Moroccan-controlled part of Western Sahara is separated from the Sahrawi-controlled part by a berm made up of this material. Much of the Sahara Desert in northern Africa is made up of this material.

ANSWER: **sand**

<Mundhe, Geography>

6. Some estimates put the number of these organisms in, and on, an average human at 39 trillion. For 10 points each:

[E] Name these ubiquitous microorganisms. They can cause diseases such as tuberculosis, and comprise one of the three domains of life, with archaea and eukaryotes.

ANSWER: **bacteria**

[H] A bacteria in the genus *Clostridium* causes this disease, whose characteristics include drooping eyelids. This disease's toxin is also used in a namesake procedure commonly used to remove wrinkles.

ANSWER: **botulism** [accept **botulinum**; accept **Botox**]

[M] Botulinum toxin inhibits the release of acetylcholine, one of these compounds, which is used at neuromuscular junctions. These compounds are secreted by neurons across synapses.

ANSWER: **neurotransmitters**

<Wu, Biology>

7. Residents of this country's colonies that were born in this country were called *peninsulares*. For 10 points each:

[E] Name this country which colonized most of Latin America aside from Brazil.

ANSWER: **Spain** [or Kingdom of **Spain**; or Reino de **Espana**]

[H] The Spanish crown gave grants of forced native labor to landowners in this system. Due to the shift to agricultural activity in the Spanish colonies, this system was succeeded by the *hacienda* system.

ANSWER: **encomienda**

[M] This ruler passed the New Laws in an attempt to mitigate the exploitation of the *encomienda* system. This Spanish king and Holy Roman Emperor was succeeded by Phillip II.

ANSWER: **Charles V** [accept **Charles I** of Spain; accept **Carlos V**; or **Carlos I**; prompt on **Charles** or **Carlos**]

<Mundhe, European History>

8. The Barabar Caves were dedicated to “King Piyadassi,” who has been identified with this ruler. For 10 points each:

[M] Name this Mauryan emperor who converted to Buddhism, a grandson of Chandragupta.

ANSWER: **Ashoka** Maurya [or **Ashoka** the Great]

[E] Prior to converting to Buddhism, Ashoka operated a torture chamber nicknamed for this location. The Greeks believed this general location was ruled by Hades.

ANSWER: **hell** [or Ashoka’s **hell**; or the **underworld**; accept obvious equivalents]

[H] Description acceptable. After swearing off violence, Ashoka had his chief executioner removed from his position in this manner. Mauryan widows infrequently killed themselves by performing this action during *sati*.

ANSWER: being **burned** alive [accept equivalents, such as death by **fire**; accept sitting on a funeral **pyre** or equivalents]

<Riley, Ancient History>

9. One novel by this author ends with the line “Now vee may perhaps to begin. Yes?” For 10 points each:

[H] Name this Jewish-American author of *Portnoy’s Complaint*, who also wrote many works featuring the character Nathan Zuckerman.

ANSWER: Philip **Roth**

[M] In a novel by Roth, the anti-Semitic Eve Frame writes about her marriage to Ira Ringold, who is a member of this title group. Arthur Miller’s *The Crucible* is often thought of as an allegory about the persecution of members of this group.

ANSWER: **Communist** Party [or *I Married a Communist*]

[E] Roth’s character Eve Frame is based on his wife, Claire Bloom, who shared this profession with Eve Frame. Marilyn Monroe was another member of this profession.

ANSWER: **Actress**

<Ganguli, American Literature>

10. This function is differentiable everywhere, except at x equals 0. For 10 points each:

[E] Name this function denoted with two vertical bars, which converts a negative number to its positive counterpart.

ANSWER: **absolute value**

[M] The derivative of the absolute value for x less than zero is this value, while the derivative for x greater than zero is this other value. Name both, and it may help to know the derivative is equal to the slope for this function.

ANSWER: **-1** and **1**

[H] The anti-derivative of the function “one over x” equals this function of the absolute value of x, plus C.

ANSWER: natural **logarithm** [or **ln**]

<Maharjan, Math>

11. An early example of these rankings dates to a 2005 post on a Tekken 4 forum. For 10 points each:

[H] Name this type of ranking, which sorts objects into categories based on their value. Letters are commonly used to denote the categories in these rankings, with “S” being the top.

ANSWER: **tier** lists [or **tier** rankings; accept equivalents]

[M] Tier lists are prominently used in competitive fighting games, such as this franchise’s Melee installment, where Fox and Marth are S-tier.

ANSWER: Super **Smash** Bros. [or Super **Smash** Brothers]

[E] TierZoo, a channel with videos using video game jargon to explain biology concepts, is on this website, the most popular video-sharing site on the internet.

ANSWER: **YouTube**

<Sarma, Pop Culture>

12. Mary Tyler's publicity helped popularize the "Anti-Saloon League," which supported the beginning of this period. For 10 points each:

[E] Name this period begun by the Eighteenth Amendment, in which alcohol was banned.

ANSWER: **Prohibition**

[H] This President's wife was nicknamed "Lemonade Lucy" for trying to keep an alcohol-free White House during his administration. This man became President after the "Compromise of 1877," which ended Reconstruction.

ANSWER: Rutherford B. **Hayes**

[M] The anti-alcohol activist Carrie Nation was told in a dream to "Go to Kiowa" in this state and beat up saloons with a hatchet. This state was nicknamed "Bleeding" in the lead-up to the Civil War.

ANSWER: what's the matter with **Kansas**? [or Bleeding **Kansas**]

<Riley, American History>

13. In one play, a character with this profession first mentions the title "Bald Soprano." For 10 points each:

[M] Name this profession. In a novel, a character with this profession, Guy Montag, is chased by the mechanical hound.

ANSWER: **fireman** [accept synonyms]

[H] *The Bald Soprano* is by this Romanian absurdist playwright, who wrote about a character who screams "I'm not capitulating!" in his play *Rhinoceros*.

ANSWER: Eugene **Ionesco**

[E] Ionesco wrote *The Bald Soprano* and *Rhinoceros* in this language, which was also used by Paris native Jean Genet to write *The Maids*.

ANSWER: **French** [or **français**]

<Ganguli, European Literature>

14. A member of this house quipped that the infant Baelon was "heir for a day," despite Baelon only living that long. For 10 points each:

[H] Name this royal house, the namesake of a "madness" that affected many of its kings, such as Aerys II. Before succumbing to that madness, a queen from this house had the masters of the Unsullied killed.

ANSWER: House **Targaryen**

[E] Emilia Clarke portrayed the aforementioned Daenerys Targaryen in this HBO show, adapted from George R. R. Martin's *A Song of Ice and Fire*.

ANSWER: **Game of Thrones**

[M] In season one of *Game of Thrones*, Daenerys takes care of these creatures' eggs, inspiring her nickname of the "mother of [these creatures]." The prequel series to *Game of Thrones* is titled *House of [one of these creatures]*.

ANSWER: **dragon** [or the Mother of **Dragons**; or *House of the Dragon*]

<Mundhe, Pop Culture>

15. This quantity has the same units as Webers over Teslas. For 10 points each:

[M] Name this quantity, which is multiplied by magnetic field and the cosine of angle to calculate magnetic flux. For a sphere, this quantity is proportional to radius squared.

ANSWER: surface **area**

[H] The magnetic flux of a closed surface equals zero, according to this scientist's law of magnetism, one of Maxwell's equations. Closed surfaces named for this scientist are used to solve problems involving flux.

ANSWER: Carl Friedrich **Gauss** [or a **Gaussian** surface]

[E] For a given magnetic field, the magnetic flux is maximized when the field and surface form this angle. This angle is formed by two perpendicular lines.

ANSWER: **90** degrees [or **pi/2**; accept **normal** or **orthogonal**]

<Wu, Physics>

16. This country's Indian Act banned the potlatch ceremonies practiced by many of its native peoples. For 10 points each:

[M] Name this country, many of whose peoples are referred to as "First Nations."

ANSWER: **Canada**

[E] In 1935, unemployed workers on strike marched through Meti territory on a "trek" named "On-to" this capital of Canada.

ANSWER: **Ottawa** [or the On-to-**Ottawa** Trek]

[H] Many of the European ancestors of the Métis were traders of this product. For much of the 17th century, the Hudson's Bay Company had a monopoly on this good's trade in Canada.

ANSWER: **furs** [accept **pelts**; accept more specific types of **fur** like beaver **fur**]

<Riley, World History>

17. Interest in a god with the head of this animal surged in the mid-2010s after its similarity to an online figure named Pepe was noted by denizens of the online message board 4chan. For 10 points each:

[E] One personification of primordial darkness, Kek, was often represented by this animal. In a Brothers Grimm fairy tale, a prince transformed into this animal is restored to his human form after a kiss from a princess.

ANSWER: **frog**

[M] Kek is a figure in the cosmogony of this country's mythology. In another story from this country, the mother of Horus forces the Sun god Ra to tell her his secret name.

ANSWER: **Egypt** [or Jumhuriyyat **Misr** al-Arabiyyah]

[H] The Egyptian goddess Heket, who is said to have the head of a frog, is often associated with this entity. This entity is said to have been created from the tears of Isis over the death of Osiris.

ANSWER: **Nile** River

<Ganguli, Mythology>

18. This law can be derived by substituting Z equals 1 into the virial equation of state. For 10 points each:

[M] Name this law, which states that PV equals nRT .

ANSWER: **ideal gas** law

[H] This generalization of the ideal gas law adds the constants a and b to account for intermolecular forces and particle size, respectively. It's named for a Dutch physicist.

ANSWER: **Van Der Waals** equation

[E] Both the V in the ideal gas law and the b in the Van Der Waals equation represent this quantity, measured in cubic meters. For a rectangular prism, this quantity equals the product of the three side lengths.

ANSWER: **volume**

<Wu, Chemistry>

19. This author attacked two of his critics named Aurelius and Furius in one poem. For 10 points each:

[H] Name this poet, who wrote about a sparrow belonging to his lover Lesbia in the second and third of his 116 carmena.

ANSWER: Gaius Valerius **Catullus**

[E] Catullus wrote in this language of the Roman Republic, which was used by Horace and Ovid to write the *Ars Poetica* and *Ars Amatoria*, respectively.

ANSWER: **Latin** [or lingua **Latina**]

[M] Catullus adapted a poem by this other poet to reflect his love for Lesbia. This "tenth muse" hailed from the island of Lesbos.

ANSWER: **Sappho** [or **Psappho**]

<Palavajhala, World/Other Literature>

20. Andrea Mantegna used foreshortening, a form of this technique, in *The Lamentation over the Dead Christ*. For 10 points each:

[E] Name this technique, which artists use to depict three-dimensional space on a flat canvas. Further objects are shown as smaller in this technique, in which parallel lines are drawn such that they converge at a vanishing point.

ANSWER: linear **perspective**

[H] This Italian artist used a mirror in order to rediscover linear perspective. This artist lost a contest against Lorenzo Ghiberti for the commission for the doors to the Florence Baptistry.

ANSWER: Filippo **Brunelleschi**

[M] Brunelleschi designed an octagonal brick one of these features for the Florentine Cathedral. One of these features in the Pantheon features an oculus.

ANSWER: **dome** [prompt on roof]

<Mundhe, Visual Fine Arts>