

# Early Release Introductory Set (ERIS)

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## Packet 9

Tossups:

1. **This number is the only number that is used in the expression of the golden ratio through continued fractions. Raising  $i$  to the fourth power gives this number, while raising anything to the (\*) zeroth power also gives this number. This number is the only positive integer that is neither prime nor composite. The multiplicative identity is, for 10 points, what smallest positive integer?**

ANSWER: one <Karpov, Mathematics>

2. **The speaker of this poem notes that, "knowing how way leads on to way", he may never return to its setting. This poem's speaker "shall be telling this with a sigh / somewhere ages and ages hence", and notes that its central action "has made all the (\*) difference". "Two roads diverged in a yellow wood" in, for 10 points, what Robert Frost poem whose narrator "took the path less traveled by"?**

ANSWER: "The Road Not Taken" [do not accept or prompt on "The Road Less Traveled", because that's not what the poem is called!] <Das, Literature>

3. **This hero defeated criminals such as Sciron, who asked him to wash his sandals, during one of his journeys. This hero received thread from Ariadne which he used to navigate the (\*) Labyrinth. This hero returned home with black sails on his ship, prompting his father Aegeus to jump off a cliff out of grief. For 10 points, name this hero who was king of Athens and defeated the Minotaur.**

ANSWER: Theseus <Dahal, Mythology>

4. **In one scene in this novel, its main character is visited by the chained ghost of his former business partner. This novel's protagonist is visited by a series of ghosts representing the past, (\*) present, and future of the title holiday, after which he abandons his miserly ways. For 10 points, name this Charles Dickens novel about Ebenezer Scrooge's dreams on December 25th.**

ANSWER: A Christmas Carol <Gjesfjeld, Literature>

5. **The historic Coney Island Cyclone is a wooden one of these structures built in 1927. The tallest one of these objects, Kingda Ka, surpassed one of them in (\*) Cedar Point, Ohio when it was built. These structures typically start with a lift hill and might include a vertical loop. Six Flags locations contain many of, for 10 points, what amusement park rides in which cars ride on rail tracks?**

ANSWER: roller coasters [prompt on amusement park rides or similar answers until mentioned; prompt on coasters] <Kher, Miscellaneous>

6. **This leader accused a group of mostly Jewish doctors of sabotage in his antisemitic "doctors' plot". This ruler's regime caused the devastating man-made Holodomor famine in Ukraine in the early (\*) 1930s. In Operation Barbarossa, Nazi Germany invaded this leader's country. For 10 points, name this brutal Soviet dictator who led the USSR during World War II.**

ANSWER: Josef Stalin [or Iosif Vissarionovich Stalin, or Ioseb Besarionis dze Iughashvili] <Gjesfeld, History>

7. **Purkinje (pur-KIN-jee) fibers transmit electrical signals through this organ. This organ contains a bicuspid valve and a tricuspid valve, and it can be regulated by artificial (\*) pacemakers. The aorta carries blood out of this organ, which is comprised of two atria and two ventricles. For 10 points, name this primary circulatory organ that pumps blood throughout the human body.**

ANSWER: heart <Karpov, Science>

8. **During this event, a restaurant owner on a beach held a plate of fried squid and lauded the "Calamari Comeback" while representing Rhode Island. Brayden Harrington delivered a speech about overcoming his (\*) stutter during this event, which was organized in Milwaukee. For 10 points, what August 2020 event concluded with the official nomination of Joe Biden as its party's candidate for president?**

ANSWER: 2020 Democratic National Convention [or the 2020 DNC] <Gjesfeld, Current Events>

9. **Ambrose Bierce is killed by Tomas Arroyo after becoming involved in a revolution in this country in one novel. A poem from this country called "Sunstone" contains 584 lines, an homage to its native (\*) Aztec calendar. Sandra Cisneros's *The House on Mango Street* depicts an immigrant to Chicago from, for 10 points, what southern neighbor of the United States?**

ANSWER: Mexico [or the United Mexican States, or los Estados Unidos Mexicanos, or the EUM, or Méxihco] <Young, Literature>

10. **This element's diatomic form is paramagnetic due to its unpaired electrons' parallel spin. Joseph Priestley named this element "dephlogisticated air" after isolating it. Lavoisier (la-VWAH-zee-AY) proved that (\*) combustion requires this element, which makes up about 21% of Earth's atmosphere. For 10 points, name this element which bonds to two atoms of hydrogen to form water and is symbolized O.**

ANSWER: oxygen [prompt on O before mention] <Sarma, Science>

11. **The *shechita* process is required for some items to have this status. If meat and dairy products are mixed, the resulting meal cannot have this property. No cloven-hoofed mammals can have this status, which is why observant (\*) Jews abstain from eating pork. The Hebrew word for "fit" describes, for 10 points, what status given to foods in accordance with Jewish dietary law?**

ANSWER: being kosher [accept anything related to obeying kashrut; prompt on descriptive answers like "[Jews can eat it]"] <McAvoy-Bickford, Religion>

12. **This state is home to the Hoh Rainforest, the only temperate rainforest in the United States. Mt. Baker and Mt. Rainier are among this state's active volcanoes. This state contains Puget Sound, and along with its southern neighbor, (\*) Oregon, it is bisected by the Cascade Range. Olympia is the capital of, for 10 points, what state whose largest city is Seattle?**

ANSWER: State of Washington [do not accept or prompt on "Washington, D.C."] <Rubel, Geography>

13. **An aqueduct system in this city was designed by William Mulholland, triggering a set of "Water Wars". The Sleepy Lagoon murder occurred in this city and set off its Zoot Suit Riots. A 1992 series of riots in this city followed the taped beating of (\*) Rodney King by police.** Long Beach and Anaheim are suburbs of, for 10 points, what Southern California city?

ANSWER: Los Angeles [or L.A.] <Singh, History>

14. **A rejected 2005 proposal to change one of these things used in Mozambique involved removing the AK-47 that appears on it. Nepal uses one of these things with an unusual shape, and one of them used in Japan depicts a red (\*) sun over a white background.** Countries like France use the tricolor type of, for 10 points, what national symbols that include America's "Stars and Stripes?"

ANSWER: national flags <Kher, Geography>

15. **This man wrote the hymn "A Mighty Fortress is Our God." This man debated Huldrych Zwingli (HULL-drick TSVING-lee) at the Marburg Colloquy and was excommunicated by Leo X at the Diet of Worms (worms). This man's anger at Johann Tetzel's sale of indulgences prompted him to (\*) nail his most famous work into the door of a church in Wittenberg.** For 10 points, name this author of the 95 Theses who started the Protestant Reformation.

ANSWER: Martin Luther [or Martin Luder] <Young, History>

16. **The development of vast forests in the Carboniferous period led to increased formation of this material. The town of Centralia, PA was almost totally evacuated because of an underground fire in a (\*) mine for this material that is still burning 50 years later.** Lignite and anthracite are two forms of, for 10 points, what rock formed from dead plant matter that is also burned as a fossil fuel?

ANSWER: coal [do NOT accept or prompt on "charcoal", which is a man-made material] <Sarma, Science>

17. **The sign language interpreter at this man's funeral, Thamsanqa Jantjie (taam-saan-ta yaan-tee), performed meaningless gestures instead of actual sign language. This man succeeded F. W. de Klerk in his highest office after being released from 27 years of imprisonment at (\*) Robben Island.** For 10 points, name this leader of the African National Congress, the first black president of South Africa.

ANSWER: Nelson [Rohlahla] Mandela <Gjesfeld, History>

18. **Uranus has this many outer rings. A spacecraft with this number in its name is the only one ever to visit Uranus and Neptune; that spacecraft was the last of this many (\*) Voyager probes to have been launched.** Mars is orbited by this many moons, and there are this many planets closer to the Sun than Earth. For 10 points, how many stars are in a binary system?

ANSWER: two <Sarma, Science>

19. **Two towers appear on the facade of this city's Reims (RENCE) Cathedral, an early example of High Gothic Architecture. An underground lobby in a museum in this city can be reached by entering an I. M. Pei-designed glass (\*) pyramid.** A medieval cathedral in this city is currently being rebuilt after a 2019 fire. For 10 points, name this city home to Notre Dame and the Louvre (LOOV), the capital of France.

ANSWER: Paris <Kher, Fine Arts>

20. **Although this story is commonly associated with the Arabian Nights, its first appearance was in a 1710 French translation. Will Smith starred in a 2019 live-action (\*) remake of a movie with this name which includes the song "A Whole New World".** For 10 points, what Middle Eastern folk tale was turned into a Disney film about a street urchin and a genie?

ANSWER: Aladdin <Sarma, Miscellaneous>

## Bonuses:

1. Seven small kingdoms fought for control of this country during the Warring States period, which resulted in the state of Qin (**chin**) emerging supreme. For 10 points each:

[10] Name this country whose capital during the Qin Dynasty was located at Xi'an (**SEE-ahn**).

ANSWER: **China** [or **Zhongguo**]

[10] This first emperor of the Qin dynasty united China, ending the Warring States period. He is traditionally held to have perpetrated a burning of books and mass murder of scholars, which may not have actually happened.

ANSWER: **Qin Shi Huang** [or Qin **Shi Huangdi**, or **Zhao Zheng**, or **Ying Zheng**, or **Zheng, King of Qin**; prompt on **Zheng**; prompt on **First Qin Emperor**]

[10] Qin Shi Huang (**chin shur hwahng**) ordered the construction of a massive army of sculptures of soldiers made of this substance to protect him in the afterlife.

ANSWER: **terracotta** [prompt on **ceramic** or **clay** or **pottery**] <Gunter, History>

2. This man penned an elegy for himself, writing that "I hope to see my Pilot face to face / when I have crossed the bar". For 10 points each:

[10] Name this British poet of "Crossing the Bar". Another of his poems is set during the Crimean War and describes a cavalry unit at the Battle of Balaclava.

ANSWER: Alfred, Lord **Tennyson**

[10] This Tennyson poem opens "Half a league, half a league / half a league onward". Its final stanza asks "When can their glory fade? / O the wild charge they made!".

ANSWER: "The **Charge of the Light Brigade**"

[10] "The Charge of the Light Brigade" describes the cavalry riding into the "valley of" this concept. An Emily Dickinson poem begins "Because I could not stop for [this concept] -- / He kindly stopped for me".

ANSWER: **death** <Young, Literature>

3. This painting depicts James Monroe holding up an American flag. For 10 points each:

[10] Name this Emmanuel Leutze (**LOYT-zuh**) painting depicting the first president of the United States sailing a boat across a river during the Revolutionary War.

ANSWER: **Washington Crossing the Delaware** [do not accept or prompt on "George Washington Crossing the Delaware"]

[10] This American regionalist artist painted *Daughters of Revolution*, a work that depicts three people who may be Ben Franklin, Thomas Jefferson and George Washington in drag standing in front of Leutze's *Washington Crossing the Delaware*.

ANSWER: Grant [DeVolson] **Wood**

[10] Grant Wood also created this painting, depicting a farmer standing next to his daughter and holding a pitchfork in front of a house in Eldon, Iowa.

ANSWER: **American Gothic** <Young, Fine Arts>

4. Answer some questions about the work of Italian biologist Camillo Golgi, for 10 points each:

[10] Golgi discovered a large organelle which is named for him and which packages these molecules. These molecules are made up of amino acids and are a nutrient provided in food like nuts and meat.

ANSWER: **proteins**

[10] Golgi also invented a form of this technique that allows neurons to be visualized. Hans Christian Gram names another form of this technique that can be used to classify bacteria.

ANSWER: **staining** [accept Gram **staining**]

[10] Gram staining classifies organisms based on the thickness of this organelle, which surrounds the cells of some organisms. It is made of cellulose in plants and is not present in animal cells.

ANSWER: **cell wall** [do not accept or prompt on "cell membrane"] <Young, Science>

5. This event will be preceded by Fimbulwinter, a series of three successive winters that will kill all humans except for Líf and Lífþrasir (**LEEF-thraa-seer**). For 10 points each:

[10] Identify this event whose name means "Fate of the Gods" in Old Norse. During this event, Odin will be swallowed whole by the wolf Fenrir.

ANSWER: **Ragnarök**

[10] During Ragnarök, this god of thunder will kill and be killed by the sea serpent Jörmungandr (**YOR-moon-gahn-der**). He is probably better known for wielding the weapon Mjölhnir (**myol-neer**).

ANSWER: **Thor**

[10] Heimdallr will blow the Gjallarhorn (**GYAH-lar-horn**) to warn the occupants of this home of the gods about Ragnarök starting. In another myth, a giant and his horse attempted to build walls around this location.

ANSWER: **Asgard** <Gollamudi, Mythology>

6. This event was described by Franklin Delano Roosevelt as "a day which will live in infamy". For 10 points each:

[10] Name this event in which the USS Arizona was sunk in an American naval base by a surprise attack.

ANSWER: the attack on **Pearl Harbor**

[10] Pearl Harbor is a naval base in this U.S. state consisting of a volcanic archipelago in the Pacific Ocean. Its capital of Honolulu is near Pearl Harbor.

ANSWER: **Hawaii** [or Moku'āina o **Hawai'i**]

[10] This Japanese admiral commanded the pilots at Pearl Harbor. His plane was shot down on Bougainville Island during Operation Vengeance in 1943.

ANSWER: Isoroku **Yamamoto** [or **Yamamoto** Isoroku, since Japanese names are traditionally written in reverse order] <Karpov, History>

7. The protagonist of this novel is transported to a planet called Tralfamadore which contains toilet-plunger shaped aliens. For 10 points each:

[10] Name this novel in which Billy Pilgrim is "unstuck in time."

ANSWER: ***Slaughterhouse-Five***

[10] *Slaughterhouse-Five* was written by this American author who depicted an apocalypse caused by ice-nine in his novel *Cat's Cradle*.

ANSWER: Kurt **Vonnegut** [Jr.]

[10] Vonnegut also wrote about car dealer Dwayne Hoover and science fiction author Kilgore Trout in a novel titled for "[this meal] of Champions", inspired by the slogan for Wheaties, a cereal often eaten at this meal.

ANSWER: **breakfast** [accept **Breakfast** of Champions] <Young, Literature>

8. Answer the following about recent winners of the Tony award for Best Musical, for 10 points each:

[10] This Lin-Manuel Miranda musical retelling the stories of the Founding Fathers with a nonwhite cast won a whopping 11 Awards at the 2016 Tonys, including Best Musical. It recounts the life and death of the title "Bastard orphan".

ANSWER: ***Hamilton***: *An American Musical*

[10] *Hadestown*, the most recent best musical winner, is a jazzy retelling of the tale of this Greek mythological figure, who has to rescue his wife Eurydice from the underworld.

ANSWER: **Orpheus**

[10] 2018's winner was this musical following the experience of the Alexandria Police Orchestra's trip to a remote Israeli town for a day after a clerk misunderstands their accent and sells them bus tickets to the wrong destination.

ANSWER: *The **Band's Visit*** <Farra, Fine Arts>

9. Answer some questions about Chinese traditional astrology, for 10 points each:

[10] This Chinese practice, named from the words for "wind-water", is used to harmonize buildings with their surroundings using *qi* (**chee**).

ANSWER: **feng shui** [prompt on **geomancy**]

[10] In Chinese astrology, this cycle of animals is supposed to determine one's personality, as primarily assigned by year. Its Western counterpart assigns people to one of twelve constellations representing parts of the year.

ANSWER: Chinese **zodiac**

[10] This is the only fictitious animal in the zodiac. Chinese examples of these animals do not typically have wings, unlike Western examples.

ANSWER: **dragons** <McAvoy-Bickford, Religion>

10. These mathematical concepts can be classified as "inconsistent" whenever any solutions to them would produce an illogical result, such as  $1 = 2$ . For 10 points each:

[10] Name these collections of constraints, which can be solved using elimination, substitution, or Cramer's rule.

ANSWER: **systems of linear equations** [prompt on **equations**; prompt on **systems**]

[10] Cramer's rule is a method for solving systems of equations using these mathematical objects. These rectangular arrays of numbers can have determinants, and their multiplication is not commutative.

ANSWER: **matrices** [accept word forms like **matrix**, obviously]

[10] An elimination method named for this man performed on matrices can be used to assist in solving systems of linear equations. As a child, this man amazed his teachers by summing the numbers from 1 to 100 in his head.

ANSWER: Carl Friedrich **Gauss** [accept **Gaussian** elimination] <Karpov, Mathematics>

11. A large volcanic plateau on this planet is home to some of the largest volcanoes in the Solar System. For 10 points each:

[10] Name this planet that contains the Tharsis region. This "red planet" is the fourth planet from the Sun.

ANSWER: **Mars**

[10] Mars also contains this largest volcano in the Solar System, with a base about 370 miles wide and a height two and a half times that of Mount Everest.

ANSWER: **Olympus Mons** [do NOT accept or prompt on "Mount Olympus"]

[10] Olympus Mons is so tall that it is the only Martian structure still visible during planet-wide examples of these events, one of which blanketed Mars when it was first observed by the *Mariner* spacecraft. These events occur frequently on Earth in the Bodélé Depression.

ANSWER: **dust storm** [or **sandstorms**] <Sethi, Science>

12. Trains crossing this country's large "outback" include the Indian Pacific and the Ghan, the latter of which is named in honor of Afghan camel herders. For 10 points each:

[10] Name this large island country south of Asia. Its largest city, Sydney, is home to an iconic Jørn Utzon-designed opera house.

ANSWER: **Australia**

[10] This capital and largest city of Western Australia lies where the Swan River meets the Indian Ocean. Attractions in this city include Kings Park and a botanical garden on Mount Eliza.

ANSWER: **Perth**

[10] This massive sandstone monolith in Australia's Northern Territory holds spiritual significance to indigenous people, prompting a 2019 ban on climbing it. One of the outback's best known tourist attractions, it is located near the city of Alice Springs.

ANSWER: **Uluru** [begrudgingly accept **Avers Rock**] <Stewart, Geography>

13. For 10 points each, answer some questions about social contract theory:

[10] The Greek thinker Socrates proposed an early version of the social contract; he believed that his contract with the Athenian state obligated him to take this action by drinking hemlock.

ANSWER: **suicide** [accept any answers referring to **dying** or **being executed**]

[10] This English philosopher's book *Leviathan* contained the first modern formulation of the social contract, which he said people would enter into because otherwise life would be "nasty, brutish, and short".

ANSWER: Thomas **Hobbes**

[10] For John Locke, social contracts existed to protect rights such as life, this concept, health, and property. Thomas Jefferson grouped this concept with life and the pursuit of happiness in the Declaration of Independence.

ANSWER: **liberty** <Sarma, Philosophy>

14. Answer some questions about the early colonization of New England, for 10 points each:

[10] The Plymouth Colony was founded by the Pilgrims, who sailed to America aboard this vessel. The first governing document of the colony was a "Compact" signed aboard, and named for, this vessel.

ANSWER: the **Mayflower**

[10] This Puritan minister founded Rhode Island after being expelled from Massachusetts. He was one of the first abolitionists and wrote the first book about Native American languages.

ANSWER: Roger **Williams**

[10] This other New England state was formed out of three colonies, including the New Haven and Saybrook Colonies. In 1687, its charter was hidden in a large oak tree to avoid it being seized by the English governor-general.

ANSWER: **Connecticut** <McAvoy-Bickford, History>

15. This quantity is the measure of the average kinetic energy of molecules in a substance. For 10 points each:

[10] Name this quantity that describes how hot or cold an object is. It can be measured on the Fahrenheit, Celsius, or Kelvin scales.

ANSWER: **temperature** [prompt on **heat**]

[10] This cycle named for a French chemist is a thermodynamic process through which heat can be converted to usable work. It transfers heat through hot and cold reservoirs.

ANSWER: **Carnot** cycle [accept **Carnot** engine]

[10] Reversing the Carnot cycle can produce an idealized example of this kind of appliance. This kind of appliance acts as a reverse heat pump, forcing heat out of itself, and they now use HFC-134a instead of Freon as a coolant.

ANSWER: a **refrigerator** [or a **fridge**, or a **freezer** because that's the same thing just stronger] <Karpov, Science>

16. After this country's King Stephen I defeated a rival claimant to the throne, that claimant's body was drawn and quartered, and the four pieces were displayed at the gates of its four largest cities. For 10 points each:

[10] Name this state which was established after Árpád, the son of Álmos (**AHL-mohsh**), led the Magyars (**MAH-jars**) into the Pannonian Basin, where they built a capital on the Danube River.

ANSWER: the Principality of **Hungary** [or the Kingdom of **Hungary**, or **Magyarország**]

[10] King Stephen was given this honor after his death. In order to be given this honor in the Catholic Church, two miracles must be ascribed to one's intercession, and beatification is a prerequisite step.

ANSWER: **canonization** [accept any answers indicating that he was **made a saint**]

[10] Saint Stephen of Hungary was crowned by a holder of this title named Sylvester. This title, the head of the Roman Catholic Church, is currently held by Francis.

ANSWER: **pope** [or **pápa**; accept **Bishop of Rome**] <Rameshbabu, History>

17. Despite being given 5000-to-1 odds to win the Premier League before the 2015-2016 season started, this team won its first-ever title that year under manager Claudio Ranieri. For 10 points each:

[10] Name this club that plays at the King Power Stadium. They were led to their league title by players such as Jamie Vardy.

ANSWER: **Leicester** City F.C. [prompt on the **Foxes**; Leicester is pr. "LESTER", but be lenient]

[10] The Premier League is the highest division of club soccer in this constituent country of the United Kingdom. This country's players have included David Beckham and Wayne Rooney.

ANSWER: **England**

[10] Kasper Schmeichel, who played goalkeeper during Leicester's title-winning season, is the son of Peter Schmeichel, a former goalkeeper for this other club. This northern English club was managed for many years by Sir Alex Ferguson.

ANSWER: **Manchester United** F.C. [accept **Man United** or **Man U**; prompt on **Manchester** or **United**; prompt on the **Red Devils**; do NOT accept or prompt on "Manchester City"] <Cui, Popular Culture>

18. The wirewound type of these objects can be constructed using a conductive wire around a non conductive core. For 10 points each:

[10] Identify these objects whose strength is measured in ohms. Their strength is usually indicated on them with a series of lines following a standard color code.

ANSWER: **resistors**

[10] The ohm is defined as this quantity per ampere, and is the difference in electric potential between two points. This quantity is equal to energy over charge.

ANSWER: **voltage**

[10] This color represents the digit 2 in the resistor color code. It also has the highest wavelength of any color of visible light, appearing at the opposite end of the rainbow from violet as a result.

ANSWER: **red** <Gollamudi, Science>

19. In this book, a librarian describes the Littmus Lozenge candies that were mixed with melancholy. For 10 points each:

[10] Opal Buloni moves to Naomi, Florida, to live with her preacher father in this children's book, named after the dog she finds there.

ANSWER: ***Because of Winn-Dixie***

[10] *Because of Winn-Dixie* was written by this American author of *The Tale of Despereaux*.

ANSWER: Katrina Elizabeth "Kate" **DiCamillo**

[10] The title character of *The Tale of Despereaux* is one of these cheese-loving rodents, as is E. B. White's Stuart Little.

ANSWER: a **mouse** <McAvoy-Bickford, Literature>

20. Answer some questions about the cuisine of Mexico, for 10 points each:

[10] This dish consists of a tortilla folded over filling and is smaller than a burrito. During the 2016 presidential election, Donald Trump was associated with a claim that a Clinton win would lead to trucks selling this food "on every corner".

ANSWER: **tacos**

[10] This type of Mexican sauce, particularly its poblano variety, is often made with cacao and chiles.

ANSWER: **mole** (moe-lay)

[10] This crop, considered part of the "three sisters" of traditional Mexican agriculture, is made into a "refried" variety that uses its pinto type in much of Mexico.

ANSWER: pinto **beans** [or refried **beans**; accept **frijoles** (free-HOLE-ays)] <McAvoy-Bickford, Miscellaneous>