

Scobol Solo 2019

Packet 12 (Round 12)



1. Unless the two inputs are equal, the value of a metric function is always this type of real number. The base of a logarithm function can be any of these numbers except for the number 1. If the domain of a logarithmic function is this set of numbers, the range is all real numbers. If the derivative of a function is this type of number, then the function is strictly increasing. A quadratic function has two real solutions if its discriminant is this type of number. The graph of a quadratic function opens upward if its leading coefficient is this type of number. Give this term for numbers greater than 0.

Answer: positive numbers [accept positives; do not accept or prompt on answers containing “non-negative”]

2. This character states “For there is nothing either good or bad but thinking makes it so. To me it is a prison.” Those words are said by this character to his friends who have come from Wittenberg [VIT-en-burg] to investigate him at the invitation of the King and Queen. This character kills the King’s advisor by putting his sword through an arras [AIR-russ]. This character tells a woman interested in him to “Get thee to a nunnery.” This friend of Rosencrantz and Guildenstern kills Polonius and drives Ophelia insane. This character gives the “To be, or not to be” soliloquy. Name this title character of a William Shakespeare play set in Denmark.

Answer: Prince Hamlet [do not accept “King Hamlet”]

3. When this royal house got control of Burgundy, it gained control of the Order of the Golden Fleece, which is now split between the Bourbons and what remains of this house. This royal house expanded its influence when one of its members married Mary of Burgundy and then their son Philip the Handsome married Joanna the Mad, who was also called Joanna of Castile [ka-STEEL]. When Francis of Lorraine married Maria Theresa, this royal house joined with the House of Lorraine. From the 15th through 18th centuries, this royal house controlled the Holy Roman Empire. Name this royal house whose Charles V ruled Spain and Austria.

Answer: Habsburgs

4. On a minor Jewish holiday, this action is taken to commemorate a former governor of Judah named Gedalia [guh-DAHL-ee-ah]. This action and standing are required when Japanese Buddhist monks recite *sutras* during *doiri*. Some Christians perform this action to varying degrees for three days to remember Jonah’s time in the Great Fish; that commemoration is named for Nineveh [NIN-uh-veh]. Christian Lent is based on Jesus doing this act for 40 days in the desert. Jews do this action for about 25 hours on Yom Kippur. Name this action that Muslims refer to as *sawm*, which is one of the five pillars of Islam and is done from dawn to sunset during Ramadan.

Answer: fasting [accept descriptive answers such as not eating or giving up food]

5. Joseph Priestley combined nitric oxide and iron with this compound to make nitrous oxide. Formic acid decomposes into carbon monoxide and this compound. The combustion of methane creates carbon dioxide and this compound. This compound and an ionic salt are produced by many acid-base reactions. This compound dissociates to form hydronium and hydroxide ions. This compound is used to break bonds during hydrolysis. Name this “universal solvent” whose molecules consist of two hydrogen and one oxygen atoms.

Answer: water [or H₂O before “hydrogen”]

6. This artist developed a close friendship with Robert Delaunay; both of them included the Eiffel Tower in several paintings of Paris. A painting by this artist shows a woman in a black dress holding flowers and kissing a man with a very long neck that curves completely around. That painting, *Birthday*, depicts this artist’s first wife, Bella Rosenfeld. This artist showed a parachutist next to the Eiffel Tower in his colorful work *Paris Through the Window*. Another painting by this artist shows a goat being milked, embedded in the face of a goat looking at a green-faced man. Name this Jewish artist from Russia who painted *I and the Village*.

Answer: Marc (Zakharovich) Chagall [shuh-GAHL] [accept Moishe Segal]

7. When generals were evenly divided over whether to engage in this battle, Callimachus [kuh-LIM-uh-kiss] decided to start it. The victorious general at this battle led a later attack at Paros that resulted in him being jailed and eventually dying from his wounds. It is not known whether the losing general, Datis, survived this battle. This battle was a victory for Miltiades [mil-“TIE”-uh-deez], who led the Greeks against the Persians. There are different histories saying that Pheidippides [fy-DIP-uh-deez] either went from Athens to Sparta before this battle or ran from this battle to Athens. Name this Greek victory over the Persians that took place about 26 miles from Athens.

Answer: Battle of Marathon

8. This person was criticized in 2010 for saying of the Affordable Care Act “We have to pass the bill so that you can find out what is in it.” Alexandria Ocasio-Cortez criticized this person for “the explicit singling out of newly elected women of color” but later said a talk with this person was a “positive meeting and productive”. This person said of President Trump “I don’t want to see him impeached, I want to see him in prison.” Three months later, this person stated “I am announcing the House of Representatives is moving forward with an official impeachment inquiry.” Name this representative from San Francisco who is the Speaker of the House.

Answer: Nancy (Patricia D’Alesandro) Pelosi

9. Animals in this class have teeth with a layer of un-calcified dentine [DEN-tin]; such teeth are classified as pedi-cellate [ped-uh-SELL-it]. The least-known of the three orders in this class are limbless animals which evolved from animals with limbs; those animals are called Apoda [ay-POH-duh] or caecilians [sih-SILL-yuns]. The two other orders in this class of animals are Anura [ay-NUR-uh] and Urodela [yur-oh-DELL-uh]. Hell-benders are an example of some of the animals in this class that breathe primarily through their skin. Animals in this class lay eggs without amnions [AM-nee-ahnz], so those eggs need to be underwater. Name these cold-blooded vertebrates that can live in water and land habitats, including salamanders and frogs.

Answer: Amphibia or amphibians

10. Near the end of a short story by this writer, a butterfly lands on a man's head but then falls on the floor a little later. That story by this writer ends with four old people resolving to make a pilgrimage to Florida, hoping to regain their youth. This author's *Twice-Told Tales* contains that story, "Dr. Heidegger's Experiment". In a novel by this author, the protagonist lives for a time in a small thatched cottage, producing needlework to support her and her child. In that novel, this author wrote about a convicted adulteress in 1638 in Boston named Hester Prynne. Name this author of *The Scarlet Letter*.

Answer: Nathaniel Hawthorne

11. A *General History of* people who committed this crime was written by Charles Johnson, which may have been a pseudonym for Daniel Defoe. Jonathan Barnet sought people who committed this crime, and he captured John Rackham, who was hanged for this crime in 1720. Rackham famously wore calico and employed two women, Mary Read and Anne Bonny, whose executions for this crime were delayed because they claimed to be pregnant. During the 17th century, this crime was common near the Barbary coast. Edward Teach was famous for committing this crime and was nicknamed "Blackbeard". Name this crime of plundering ships.

Answer: piracy [or being a pirate; prompt on robbery or murder]

12. This country is not Ireland, but one of its composers gained fame for her *Gaelic Symphony*. That piece, which followed her *Mass in E-flat*, was by Amy Beach. This country has mourned the death of two of its leaders using *Adagio for Strings* by Samuel Barber, who was from this country. A political speech in this country inspired another one of its composers to write *Fanfare for the Common Man*. Name this country whose composer Aaron Copland ["COPE"-lund] used it as a setting for his ballets *Rodeo* [roh-DAY-oh], *Billy the Kid*, and *Appalachian Spring*.

Answer: United States of America or U.S.A. [accept any underlined portion]

13. This state's Wateree [wah-tuh-REE] River is the continuation of a river that is called Catawba River in another state. That river goes past Rock Hill, which is the most populous city in the northern part of this state and is the home of Winthrop University. The northwest part of this state contains Bob Jones University and Furman University, which are in Greenville. The most populous city in this state contains The Citadel and is next to the fort where the Civil War started, Fort Sumter. Name this state whose most populous city is Charleston and whose capital is Columbia.

Answer: South Carolina

14. The Davisson-Germer experiment used these particles to create a diffraction pattern, lending support to the de Broglie [duh BROY-lee] hypothesis. Heinrich Hertz [HYN-rik "hurts"] observed that photons could cause the release of these particles, which is the photo-electric effect. The charge of these particles was determined by the Millikan oil drop experiment. A neutron is converted to a proton, this particle, and this particle's anti-neutrino in beta-minus decay. The anti-particle of this particle is the positron. Name this particle that is said to exist in orbitals outside the nucleus, and which is negatively charged.

Answer: electrons

15. One character in this poem listens to the other "like a three years' child". The person he listens to eventually states both "I pass, like night, from land to land; I have strange power of speech" and "He prayeth best who loveth best." By the end of this poem, the listener is "A sadder and a wiser man". The speaker of this poem describes his torment with the words "Water, water, everywhere, nor any drop to drink", which follows his admission that he shot an albatross. Name this poem spoken in large part to a wedding-guest, written by Samuel Taylor Coleridge.

Answer: *The Rime of the Ancient Mariner*

16. One set of rules for behavior during this type of event, the Lieber [LEE-bur] Code, was written by America's first political scientist. According to a book by Carl von Clausewitz, this type of event "is merely the continuation of politics by other means". Thomas Aquinas devised three criteria for determining whether this type of event could be "just", the last of which is that this type of event should try to end itself as a major goal. A person who claims the right to not participate in this type of event, even when others are doing so, is called a conscientious objector. Name this type of event that often consists of nations fighting each other.

Answer: wars

17. This country apologized after one of its soldiers hit U.S. diplomat John Allison in the face in 1938. A year earlier, this country apologized after its soldiers sunk the USS *Panay*. This country agreed to severely restrict its giving of passports to people who wanted to work in the United States [pause] in exchange for Teddy Roosevelt not imposing immigration restrictions; that pact was called the Gentlemen’s Agreement. Tule [TOO-lee] Lake and Manzanar in California were used as internment camps for people with ancestry from this country during World War II. Name this country that the United States dropped two atomic bombs on during World War II a few years after this country bombed Pearl Harbor.

Answer: Japan [or Nippon-koku or Nihon-koku]

18. This movie features a musical version of the song “Speak Softly, Love”. The lead actor in this movie stuffed tissues in his cheeks. In a montage sequence during this movie, one of the characters is asked questions such as “Do you renounce Satan?” during a baptism, while Moe Greene and other characters are murdered. The end of this film shows Diane Keaton in her role of Kay Adams after her husband, played by Al Pacino [puh-CHEE-noh], has his hand kissed by an underling. Name this Francis Ford Coppola movie, the first one based on a book by Mario Puzo about the Corleone family.

Answer: *The Godfather* [accept *The Godfather Part I*]

19. Some numbers that could be used in the classification of these objects are not needed because of the firehose instability. Robert’s quartet is a group of these objects. The largest known cluster of them is El Gordo. If one of these objects is active and very energetic, then its nucleus is a quasar [KWAY-zar]. The tuning-fork diagram developed by Edwin Hubble is used to classify these objects. Some of these objects are now classified as lenticular [len-TIK-yoo-lur], though these objects used to be classified as elliptical, spiral, or irregular. Give this term for a gravitationally-bound system of stars and other objects, such as the Milky Way.

Answer: galaxy/ies [accept elliptical galaxy/ies before “El Gordo”]

20. In one novel by this author, the protagonist enters a house and sees six children being fed from a rye loaf by a woman. This author wrote that the protagonist’s partner’s aunt had warned him not to lose his heart to that woman because she is already engaged, but he falls in love with Charlotte anyways. In a play by this writer, the title character goes for a walk with his attendant, and they are followed home by a poodle. In that play, this person wrote about a deal involving the title character wanting to stay in a moment forever. That deal is with Mephistopheles [meff-iss-TAH-fuh-leez]. Name this German author of *The Sorrows of Young Werther* [VAIR-tur] and *Faust*.

Answer: Johann Wolfgang von Goethe [GRR-tuh]

This is the end of regulation. Check the score. If it is tied, proceed to overtime tossups. If it is not tied, the game is over.

^{TB}21. This planet's biggest storm, which was modeled by Andrew Ingersoll and Cheng Li and occurs about every 30 years, is the Great White Spot. One of the moons of this planet has a crater named Herschel whose diameter is one-third that of the moon; that moon is Mimas ["MY"-muss]. Another moon of this planet is the only one in the solar system known to have a dense atmosphere. The amount of data recorded about this planet has increased significantly since 2004, when the *Cassini* probe started orbiting it. This planet's largest moon is Titan. Name this second-largest planet in our solar system and first one known to have rings.

Answer: Saturn

If the score is still tied, continue. If it is not tied, the game is over.

^{TB}22. This body of water is the location of the only home of a bird called the Wilkins bunting, which lives on the Nightingale Islands. Those islands and Tristan da Cunha [KOON-yuh] are part of a British Overseas Territory in this body of water. The north part of this body of water is the namesake of an oscillation affecting weather and is based in part on the high pressure around the Azores [uh-ZORZ]. Some of the major cities by this body are Luanda, Dakar, and Caracas. This body stretches from the Drake Passage to the North Sea, and one of its arms is the Caribbean Sea. Name this ocean that separates the Americas from Europe and Africa.

Answer: Atlantic Ocean

If the score is still tied, continue. If it is not tied, the game is over.

^{TB}23. One example of this type of building, which unusually has a Spanish Colonial Baroque façade, is the Castro in San Francisco. A famous example of this type of building is Grauman's Chinese, which is on the Hollywood Walk of Fame. Drive-ins, which used to be more commonplace, serve the same purpose as these buildings but are outside. Name these buildings where people watch films.

Answer: movie theatres or cinemas

There are no more overtime questions available. If the score is still tied, contact the control room for further instructions. If it is not tied, the game is over.