

Scobol Solo 2016

Packet 2 (Round 2)



1. One way to define this set of numbers involves saying that every non-empty subset of it that has an upper bound in it has a *least* upper bound in it, meaning that this set of numbers is Dedekind [DAY-day-keent]-complete. The continuum hypothesis states that no set can have a cardinality between aleph-null and the cardinality of this set, which is sometimes denoted “aleph-one”. When complex numbers are mapped on the Argand diagram, the horizontal axis represents this set of numbers. Name this set that equals the union of the rational and irrational numbers.

Answer: real numbers or reals [accept real line; accept continuum before “continuum”; prompt on R]

2. This city’s police chief, who claims that his father’s drowning many years ago was a poorly investigated murder, is Kerr Putney. Part of this city is represented in Congress by Robert Pittenger, who apologized in 2016 for saying that some of its residents “hate white people because white people are successful and they’re not”. Despite curfews put in place by Mayor Jennifer Roberts, a 2016 police killing of an African-American man in this city led to protests in which a civilian killed protestor Justin Carr. This city’s police killed Keith Lamont Scott while his wife was recording and saying “Don’t shoot him.” Name this major city whose protestors were labeled as “anarchists” by their state’s governor, Pat McCrory.

Answer: Charlotte, North Carolina

3. This person claimed that he got the idea of leading a revolution while he was besieged in the Faluja pocket. As a leader, this man improvised the line “My fellow countrymen, stay where you are; I am not dead, I am alive” after Mahmoud Abd al-Latif fired several shots at him at close range. This person worked closely with Muhammad Naguib, and succeeded him, after the overthrow of King Farouk [fah-ROOK]. This person worked with Syria to form the United Arab Republic. In 1956 England, France, and Israel wanted to overthrow this leader after he nationalized the Suez Canal. Name this person who was succeeded by Anwar Sadat as head of Egypt in 1970.

Answer: Gamal Abdel Nasser

4. This composer wrote one piece for the clarinetist Simeon Bellison to play with a piano and string quartet, which he called *Overture on Hebrew Themes*. This composer edited his Cello Concerto into his Symphony-Concerto. His first symphony, which debuted in 1916, is nicknamed “Classical”. This person composed the score for the Sergei Eisenstein [SAIR-gay “EYE”-zin-“stein”] movies *Ivan the Terrible* and *Alexander Nevsky*, and he also wrote the score for *Lieutenant Kijé* [kee-ZHAY]. Name this composer who used a clarinet to represent a cat, a flute to represent a bird, and French horns to represent the title animal in *Peter and the Wolf*.

Answer: Sergei (Sergeyevich) Prokofiev

5. This poet wrote “Let each new temple, nobler than the last, Shut thee from heaven with a dome more vast” in a poem that begins “This is the ship of pearl.” This poet wrote that poem about a mollusk that “Year after year beheld the silent toil / That spread his lustrous coil.” This Fireside poet wrote another work that states “Oh, better that her shattered hulk / Should sink beneath the wave”, and which prevented the decommissioning of the USS *Constitution*. This writer’s son served on the U.S. Supreme Court. Name this writer of “The Chambered Nautilus” and “Old Ironsides.”

Answer: Oliver Wendell Holmes Sr.

Check the score.

6. This country recently allowed a marina to be built at Kampung Tekek at the northwestern part of its Tioman [TEE-oh-mahn] Island. This country includes Mount Kinabalu, which shares its name with one of this country’s major eastern cities and is in the Crocker Range. Those are located in the state of Sabah in this country, which is next to the state Sarawak, which surrounds Brunei on the island of Borneo, north of Indonesia. From 1998 to 2004, the tallest buildings in the world were the twin Petronas Towers in this country’s capital. Name this country on a peninsula between Thailand and Singapore, whose capital is Kuala Lumpur.

Answer: Malaysia

7. The largest quarries for this rock were Penrhyn [PEND-rin] and Dinorwic [DEE-nor-WIG] in Wales. The texture of phyllite [“FILL-light”] is named for this type of rock, and phyllite is created when this rock is further metamorphosed. The type of cleavage named for this rock is perpendicular to the stress direction. This metamorphic rock is foliated and very fine-grained. This rock is commonly used in friction turkey calls, and the dimension form is used for the bottoms of pool tables. Historically, this rock was often confused with shale and schist. It is formed from re-crystallizing shale or mudstone. Name this rock that was used for blackboards and is used in roofing.

Answer: slate [prompt on slaty]

8. In one work by this artist, a man in green puts coins in a container held by a mouse in a chest at the foot of a bed; the central character in that painting sits up in bed next to an angel who is looking at a window with a crucifix. That picture, *Death and the Miser* was part of a larger work by this artist that also included *Allegory of Gluttony and Lust* and a picture showing a boat and a hanging pancake. Another work by this artist shows God introducing Eve to Adam on the left side, and people being crushed and grotesque creatures on the right. Name this painter from the Netherlands who created *Ship of Fools* and *The Garden of Earthly Delights*.

Answer: Hieronymus Bosch [or Jheronimus van Aken]

9. This character referred to humans as “less valuable animals” after hearing that some donkeys died. After having tea with his aunt who helped him get a job with the Company, this character writes “it’s queer how out of touch with truth women are.” This character then travels to the Inner Station, where he sees the dismembered heads of rebels on stakes facing the house. Shortly after hearing “I am lying here in the dark waiting for death”, this character is told “the horror! the horror!”, and soon after that he hears the announcement, “Mistah Kurtz — he dead.” Name this character who travels down the Congo River in Joseph Conrad’s *Heart of Darkness*.

Answer: Charles “Charlie” Marlow [accept any]

10. William Huskisson pushed for this legislation to include a sliding scale. James Wilson wrote a pamphlet about the influences of these laws, and his opposition to them motivated him to start the magazine *The Economist*. A violent event that started out as a speech against these laws led to the creation of *The Guardian* newspaper. John Bright and Richard Cobden started a league opposed to these laws. Robert Peel resigned as prime minister after siding with the Whigs and Radicals to repeal these laws, which occurred in the 1840s in the wake of the Great Potato Famine. Name these English tariffs on grain.

Answer: Corn Laws [or Importation Acts]

Check the score.

11. One person in this book tells Bishop Onderdonk “I will never enter your diocese on such terms.” That man, described in chapter 12, is the Episcopal priest Alexander Crummell. In this book, the author describes being shut out from the world of others by a vast veil. He also describes being asked “How does it feel to be a problem?”. The second chapter of this book describes the Freedmen’s Bureau, and the next chapter describes the role of industrial schools in the vision of Booker T. Washington. Name this book written by a man who would later edit *The Crisis* after co-founding the NAACP, W. E. B. Du Bois [doo boyss].

Answer: *The Souls of Black Folk*

12. In 1968, Nicolaas Bloembergen [nee-koh-LAHSS BLOOM-bur-gin] predicted that this phenomenon affects wavelengths of light striking rotating objects; his predictions were verified in 2016. A better-known example of this phenomenon was predicted in the 1842 paper “On the colored light of the double stars and certain other stars of heaven”. Doctors take advantage of this phenomenon when using ultrasound to measure blood flow. This phenomenon is also used to measure speeds using radar. Name this effect that makes a wave’s frequency seem to change when its source and observer are moving relative to each other.

Answer: Doppler effect [or Doppler shift; prompt on redshift(ing) after “1842”]

13. The narrator of this story thinks “of what sweet rest there must be in the grave” and later states “Even in the grave all is not lost.” That first statement is made in this story before the judges vanish and the candles sink into nothingness. At the end of this story, the narrator hears voices and trumpets, and his hand is caught by General Lasalle. This story’s narrator is forced towards the center of his cell by hot walls; earlier, he had escaped death by getting rats to eat his bandages. Name this Edgar Allan Poe story in which a prisoner is saved from the Spanish Inquisition.

Answer: “The Pit and the Pendulum”

14. This country tried and hanged Seyid Riza after putting down the Dersim massacre, which this country has apologized for. This country’s independence was secured by the Kuva-yi Milliye [*koo-VAH-yee MIL-uh-yeh*] in a war whose turning point was the Battle of Sakarya — also known as the Officers’ Battle because so many officers died — and which ended with the Treaty of Lausanne. After Greece started a military coup in Cyprus in 1974, this country invaded. Like Iran, Iraq, and Syria, this country has often fought against its own Kurdish populations. Name this country originally headed by Mustafa Kemal Atatürk.

Answer: (Republic of) Turkey [or Türkiye (Cumhuriyeti)]

15. Members of the Church of Latter-Day Saints take this action and attend a testimony meeting on the first Sunday of each month. Jews perform this action two days after Rosh HaShanah, on the day before Purim, and on Tisha b’Av [*TEE-shah b’-AHV*]. One type of this behavior is *santhara*, which is done in Jainism when a person is ready to die, while a more common form of this behavior in Jainism is called *upvas*. Bahá’ís take this action during the day for 19 days during the month of Alá, and Muslims take this action during the day — in addition to refraining from smoking and sex — during the month of Ramadan. Name this action taken by Jews during Yom Kippur.

Answer: fasting [accept answers equivalent to not eating]

Check the score.

16. A site specific form of this process relies on the Cre [*kree*] enzyme acting on *Lox* sites. One form of this process is responsible for switching between iso-types of anti-bodies, and is known as its class switch form. This process has an extremely similar mechanism to double-stranded break repair, and both involve the formation of a Holliday junction. A form of this process occurring during the pachytene [*PAK-ih-teen*] phase is preceded by synapsis [*sin-AP-siss*]. This process is believed to be the reason sexual reproduction became favorable over asexual reproduction as it allows the avoidance of Müller’s ratchet. Name this process that occurs during crossing over, which allows children to have different traits than their parents.

Answer: genetic recombination [accept V(D)J recombination; prompt on crossing over before “crossing”]

17. One of this composer's title opera characters sings "Di tanti palpiti" and is a soldier who, like his squire Roggiero [rohj-YAIR-oh], is often portrayed by women because the part can be sung mezzo-soprano. In another opera by this composer, the title character sings "Sois immobile [swah ee-moh-beel]" to tell his son Jemmy to remain still. That opera's overture features a "call to the dairy cows" and the "march of the Swiss soldiers". This composer of *Tancredi* wrote another opera in which the aria "Largo al factotum" is sung by Count Almaviva's former servant, Figaro. Name this composer of *William Tell* and *The Barber of Seville*.

Answer: Gioachino [joh-ah-KEE-noh] (Antonio) Rossini

18. This country is the setting of a novel about Noria grieving for her son with the professional mourner Toloki, *Ways of Dying* by Zakes Mda [ZAHKS m'-DAH]. Another novel set in this country, about an attempt to start a revolution in Ta-ban-ya-ne by Cornelius Molapo, is *Underground People* by Lewis Nkosi [n'-KOH-see]. A play set in this country depicts the difficult relationship between the servants Sam and Willie and the student Hally. In a novel set in this country, the prostitute Gertrude is visited by her brother, the priest Stephen Kumalo. This country is depicted in "*Master Harold*"... and the *Boys* and *Cry, the Beloved Country* by Athol Fugard and Alan Paton [PAY-tun]. Name this country that is the setting of several works depicting Apartheid ["apart-hate"].

Answer: (Republic of) South Africa

19. As a Supreme Court justice, this person wrote the decision that took away the federal power to remove citizenship as punishment, and the decision that ended state laws against interracial marriage, which respectively were *Trop v. Dulles* and *Loving v. Virginia*. In 1948, he almost became Vice President, running on Thomas Dewey's ticket. In 1964, this person headed the commission that determined Lee Harvey Oswald acted alone to assassinate President Kennedy. Name this liberal Chief Justice whose court decided *Brown v. Board of Education*.

Answer: Earl Warren

20. These entities are what you usually fire at atoms to produce the Auger [oh-zhay] effect. Ion-ization energies are typically similar in energy to these entities, so a technique called ESCA uses these entities to induce the photoelectric effect. Atomic spacings are similar in wavelength to these entities, so radiation in this regime is commonly used to study crystal structures. These entities were first discovered by Wilhelm Röntgen [VIL-helm RUUNT-gun], who gave them a name referring to them being "unknown" to him. Name these high-energy photons used in medical imaging to view bones.

Answer: X-rays [before "photons"; prompt on high-energy photons or electromagnetic radiation or EM radiation; accept Röntgen rays before "Wilhelm"]

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.

- TB21. The “principle” named for this person appeared in his book *Reflections on the Motive Power of Fire*, and anticipated statements by Rudolf Clausius and Lord Kelvin that are equivalent to the Second Law of Thermodynamics. The efficiency named for this person is calculated by multiplying 100 times the difference in temperature between the hot and cold reservoirs, and then dividing by the temperature of the hot reservoir. That efficiency equals the maximum efficiency of a heat engine according to the theorem named for this scientist. The cycle named for this person has two constant-temperature and two constant-heat steps. Name this Frenchman who wrote about heat engines.

Answer: (Nicolas Léonard) Sadi Carnot [sah-dee kar-noh]

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

- TB22. This author wrote a poem that is mostly told from the point of view of a woman throwing some of her possessions into a river, called “A Lover’s Complaint”. Another poem by this writer ends “to love that well which thou must leave ere long”, and opens with the line “that time of year thou may’st in me behold”. A poem in the same form by this writer begins “My mistress’ eyes are nothing like the sun” and is a sonnet; he also wrote a sonnet that poses “thou art more lovely and more temperate” as the first response to the title question. Name this poet, also famous as a playwright, who wrote “Shall I compare thee to a summer’s day?”.

Answer: William Shakespeare

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

- TB23. This is the name of a jazz-rock band that released the album *Not Just Another Bunch of Pretty Faces*. This is the name of a Rudyard Kipling poem that ends, “You’ll be a Man, my son.” This is the first word in conditional statements, followed somewhat later by the word “then”. Give this two-letter word starting with the letter ‘I’.

Answer: if

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.