

**2022-2023 IQBT Regular Season Set #2**  
**Round 1 – Tossups**

1. When analyzing these shapes, the mnemonic "a man and his dad put a bomb in the sink" is applied to their cevians (**chev-EE-enz**) in Stewart's theorem. The nine-point circle is defined on these shapes. The square of the area of these shapes is given by the semiperimeter S multiplied by S minus each of its sides, by (\*) Heron's formula. The sine of each angle in one of these shapes, divided by its opposite side, gives the same constant. The area of these shapes equals one half base times height. For 10 points, name these shapes whose "right" type are subject to the Pythagorean theorem.

ANSWER: triangles

2. This politician ordered his state's guard to monitor the Jade Helm 15 military exercises, believing them to be an invasion. This politician vetoed a bill that would have made it illegal for police to gain a confession using hypnosis. In September and December of 2022 this politician bused (\*) migrants to the Naval Observatory. After being struck by a falling tree branch while jogging, this politician has been confined to a wheelchair. In 2022, this politician won reelection by defeating Beto O'Rourke. For 10 points, name this governor of Texas.

ANSWER: Greg Abbott [Gregory Wayne Abbott]

3. A cellist in this novel must stop a concert after Amalia's suicide attempt at the Montenegro hotel. The title character's poems, such as "Holy Week", appear at the end of this novel. This novel's title character is kidnapped by the cocaine addict Liberius, who leads the (\*) Forest Brotherhood. After international acclaim for this novel, its author was forced to decline a Nobel Prize by Soviet authorities. Lara has an affair with the title character Yuri in, for 10 points, what Boris Pasternak novel named for a physician?

ANSWER: Doctor Zhivago

4. This commander was the subject of a 2021 Ruth Scurr biography on his "Life in Gardens and Shadows." This person stated that he had "married a womb" when he married the Duchess of Parma immediately after his divorce from Joséphine. This man signed the Concordat of 1801 with Pope (\*) Pius VII (**the seventh**), who had earlier crowned him in a lavish ceremony. In 1799, this man overthrew the Directory in the Coup of 18 Brumaire (**eighteenth broo-MAIR**) and declared himself First Consul. For 10 points, name this French emperor who lost the Battle of Waterloo.

ANSWER: Napoleon Bonaparte [or Napoleon I; prompt on Bonaparte]

5. Oboe and bassoon share the first theme of a piece in this genre that opens with four timpani beats. That D major Beethoven piece was repopularized by the dedicatee of a Brahms composition in this genre in D major, (\*) Joseph Joachim (**YO-sef YO-ah-keem**). A theme that gave the composer "no peace" opens Mendelssohn's E minor piece in this genre, which features a very early entrance by the soloist and, like Edward Elgar's piece in this genre, was a signature piece in performances by Yehudi Menuhin. For 10 points, name this genre in which an orchestra backs a high string instrument.

ANSWER: violin concertos [or violin concerti; prompt on concertos]

6. In a novel by this author, the old Masuji Ono describes straying from his master's *ukiyo-e* (**oo-KEE-oh-ee**) to become a right-wing propagandist. This author created a character who explains the "birds and the bees" to Reginald Cardinal. The protagonist of a novel by this author receives news of his father's death while attending a meeting between Lord (\*) Halifax and Herr Ribbentrop, and travels to meet Miss Kenton while employed at Darlington Hall. For 10 points, name this author who wrote of the butler Stevens in *The Remains of the Day*.

ANSWER: Kazuo Ishiguro

7. Frank Chapman Sharp argued for utilitarianism using an early example of this thought experiment in "An Objective Study of Some Moral Judgments." Peter Unger created a version of this thought experiment in which a bird watcher loses a leg. This thought experiment was formulated by (\*) Philippa Foot, and Judith Thompson added a scenario to it in which a fat man is pushed off a bridge. For 10 points, name this ethical thought experiment in which a person can divert a vehicle to kill one person, or do nothing to allow it to kill a group.

ANSWER: the trolley problem [or the switchman]

8. Within one of these places, Howard Vyse (vice) discovered a structure that may have been a substitute from the Saite (SAI-teh) period. Giuseppe Ferlini used explosives to destroy over 40 of these structures including one at Meroë (MEH-roh-ee). Giovanni Belzoni was the first to (\*) penetrate one of these structures that was built by Khafre (KAH-freh). A king named Menkaure (men-KAH-ray) built the smallest of three of these structures at a complex whose largest component was built by Khufu (KOO-foo). The Kingdom of Kush built about 80 of, for 10 points, what structures whose Great example is located at Giza?

ANSWER: Egyptian pyramids [prompt on tombs]

9. A form of this disease caused by the fungus *P. jirovecii* (jee-roh-VETCH-ee) is common in HIV patients. Atypical causes of this disease like *Legionella* or *Mycoplasma* can be treated with azithromycin (aa-ZITH-roh-MY-sin). *Pseudomonas* causes a form of this disease acquired from ventilators. This disease is classified as "hospital-acquired" or (\*) "community-acquired" and can be diagnosed using sputum samples. This disease can infiltrate and consolidate on an X-ray, and it causes inflammation in the alveoli (AL-vee-OH-lee). For 10 points, name this infectious disease in the lungs.

ANSWER: pneumonia [prompt on infection]

10. A city of this name contains the La Aurora Cigar Factory and is the most populous in the region of El Cibao (ayl see-BAO). With "de los Caballeros" (kah-bah-YAIR-ohs), this is the name of the second most populous city in the Dominican Republic. This word precedes "de Cuba" in the name of the second most populous city of (\*) Cuba. The Mapocho River flows through a Latin American city of this name that is a national executive and judiciary capital, though the legislature convenes in nearby Valparaíso (VAHL-pah-rah-EE-soh). "Saint James" is the meaning of, for 10 points, what name of the capital of Chile?

ANSWER: Santiago [or Santiago de los Caballeros; or Santiago de Cuba]

11. Transfer bands named for this quantity cause the color of Prussian blue. A lowercase delta denotes this physical quantity's partial form. The formula " $V - N - B$  over two" gives the "formal" type of this quantity, which is minimized by dominant resonance structures. Zwitterions (ZVIT-er-eye-onz) have separated (\*) non-zero values for this quantity, which is written in a superscript outside brackets around a Lewis structure. For an atom, this quantity equals the number of protons minus the number of electrons, and is nonzero for ions. For 10 points, what quantity is zero for a neutral atom?

ANSWER: electric charge [or formal charge]

12. Many speakers of this country's namesake language are located in Otjiwarongo (OHT-jee-wah-RON-goh) and a city near Shark Island, which housed an internment camp. Samuel Maherero (MAH-heh-RAY-roh) and Hendrik Witbooi (WIT-boy) led revolts against this country. With the U.K., this country signed the Heligoland (HEL-ee-go-land)–Zanzibar Treaty, gaining the (\*) Caprivi Strip. This European country exterminated the Nama and Herero in its colony of "South West Africa," which is now Namibia. Adolf Lüderitz established colonies of, for 10 points, what country that controlled parts of Africa during the Second Reich?

ANSWER: Germany [or Deutschland; or German Empire; or Second Reich; or Deutsches Kaiserreich; or German South West Africa]

13. Custom courses for a game in this franchise were modded by MrBean35000vr after the WFC shutdown. The character Pauline was included in a 2019 game in this franchise whose courses are located in real cities such as Tokyo and Paris. Snaking is a controversial technique for world records of a game in this franchise on courses such as (\*) Airship Fortress. Glitches were discovered in a game in this franchise on Grumble Volcano and Coconut Mall. For 10 points, name this Nintendo franchise in which Peach and Yoshi can race on Rainbow Road.

ANSWER: Mario Kart [accept Mario Kart Wii; or Mario Kart Tour; or Mario Kart DS; or Mario Kart 7; or Mario Kart 8; or Mario Kart 8 Deluxe; or Super Mario Kart; or Mario Kart 64; or Mario Kart: Super Circuit; or Mario Kart: Double Dash!!; prompt on Mario]

14. A celebration at this location is named for the ten sins it is said to rid pilgrims of. That festival celebrates the descent of this place's namesake from heaven to save the six thousand sons of Sagara (SAH-gah-rah) upon Bhagiratha's (bah-GEER-ah-tah's) request. Jupiter is in Aquarius every twelve years when pilgrims journey to (\*) Haridwar (hah-REED-war) to gather at this geographical feature. Eighty-eight ghats in Varanasi (vah-RAH-nah-see) lead into this place, the ultimate destination of Kumbh Mela (KOOM-buh-MAIL-uh) pilgrims. For 10 points, Shiva's hair is considered the source of what sacred, longest river of India?

ANSWER: Ganges River [or Ganga Mata; or Padma; or Ganga Dashahara]

15. This character's "great advantage" is that she does not "drink among hard-drinking people." After this character sees shirts "piled like bricks in stacks a dozen high," she sobs "I've never seen such . . . beautiful shirts before." A pink glow emanates from this character's room and a (\*) green light burns at the end of her dock. This character accidentally kills her husband's mistress Myrtle Wilson in a car accident. The narrator Nick Carraway is a cousin of, for 10 points, what wife of Tom who is loved by the title character of *The Great Gatsby*?

ANSWER: Daisy Fay Buchanan [or Daisy Fay Buchanan; or Daisy Fay Buchanan]

16. This painter's only signed canvas includes a Greek inscription above twelve angels who dance above a stable. This artist, who painted the birth of Christ in *The Mystical Nativity*, depicted a satyr (SAY-ter) blowing a conch to wake Mars. Mercury waves away clouds with his caduceus (kuh-DOO-sis) in a painting by this artist set in an (\*) orange grove. This painter depicted Zephyrus (ZEF-uh-ris) and Chloris in a painting whose title goddess stands in a scallop shell. For 10 points, name this Italian Renaissance artist of *Primavera* and *The Birth of Venus*.

ANSWER: Sandro Botticelli [or Alessandro di Mariano di Vanni Filipepi]

17. The arctangent of dimension over twice this quantity appears in the formula for the angle of view. A unit of power defined by the reciprocal of this quantity is typically measured in diopters. For a concave mirror, this quantity equals negative one-half of the radius of (\*) curvature. This quantity is related to the distances between the lens to the image and object in the thin lens approximation. For a convex lens, light rays meet at the point that is this distance from the lens. For 10 points, name this distance denoted with a lowercase f.

ANSWER: focal length [or focal distance]

18. The night before this battle, a general was nearly killed when a Black wagon driver named Ben led assassins to his tent. The commander of the "Yellow Jacket" riflemen, Spier Spencer, was killed in this battle. The name of this battle, whose losing side was centered at Prophetstown, was paired with "and (\*) Tyler too" in a song for the Whigs' 1840 presidential campaign. For 10 points, name this battle in present-day Indiana in which William Henry Harrison defeated the Shawnee, who were led by Tecumseh's (tek-UM-seh's) brother, "The Prophet" Tenskwatawa (TEN-skwuh-TAH-wah).

ANSWER: Battle of Tippecanoe

19. This god was the father of Thrax, who was the patron of the region of Thrace. Alectryon is turned into a rooster after failing to warn this god of Helios approaching. A vision from Athena inspires Diomedes (dai-AH-mid-eez) to wound this god and his wife during the Trojan War. Hephaestus fails to gain sympathy from the Olympians (\*) after ensnaring this god in a net during his affair with Aphrodite (AF-ruh-DAI-tee). This god complained when Sisyphus (SIS-uh-fus) bound Thanatos (THAA-nuh-tohs), since no one was dying in battle. For 10 points, name this Greek god of war.

ANSWER: Ares [or Mars until "Helios" is read; do not accept or prompt on "Mars" after "Helios" is read]

20. A house in this state features a balcony overhung by a red cypress roof with hexagonal skylights. In this state, the house of Kentuck Knob was built to specifications laid out by the Hagan family. A house in this state has a central stone chimney made from (\*) Pottsville sandstone, to which are anchored stacked platforms of cantilevered concrete. Frank Lloyd Wright designed a house atop a cascade of the Bear Run River in this state. For 10 points, name this state where Fallingwater is about an hour's drive from Pittsburgh.

ANSWER: Pennsylvania

21. The historic region of Demerara in this country lends its name to a variety of dark rum and a type of partly-refined sugar. The vast majority of the drainage basin of the Essequibo (ay-say-KEE-boh) River lies in this country. This country's Atlantic coast lies between Venezuela to the west and (\*) Suriname to the east. This country, which gained independence from the U.K. in the 1960s, is governed from Georgetown. For 10 points, name this country, not to be confused with a nearby, similarly-named "French" overseas department in South America.

ANSWER: Guyana [Co-operative Republic of Guyana]