

Round 6

First Half

(Tossup 1) **A synthetic member of this group of elements, Oganesson, was first made in 2002. The third most abundant element in Earth's atmosphere by volume is a member of this group. In 1962, Neil Bartlett discovered the first compound that (*) involved a member of this group. The decay of radium creates the heaviest natural member of this group, radon. Xenon and argon are also members of, for ten points, what group of elements whose filled valence shell make them incredibly non-reactive gasses?**

ANSWER: noble gases (or inert gases; accept Group 18 of the periodic table)

(Bonus 1) Varieties of this phenomenon include waterspouts, landspouts, and dust devils. For ten points each,

[Part A] Name this weather phenomenon, a rapidly rotating column of air that is in contact with a cloud and, usually, the Earth.

ANSWER: tornadoes (accept twisters or whirlwinds; prompt on cyclone)

[Part B] This Japanese scientist co-names a common scale for measuring tornado intensity with Allen Pearson; that scale was "enhanced" in 2006.

ANSWER: Tetsuya Theodore "Ted" Fujita (accept (enhanced) Fujita scale)

[Part C] A tornado can be expected if this system displays a hook echo signature; after the hook echo is seen on this system, a tornado warning is called, even without visual confirmation of a funnel cloud.

ANSWER: Doppler weather radar

(Tossup 2) **In *Summer Wars*, Ryohei [yo-hey] is absent from the main events due to participating in this activity. Five years after his death, Colonel Sanders "cursed" a team that plays this sport because an angry fan stole a statue of Sanders from a KFC and threw it into a Japanese river. The (*) Orix Blue Wave once employed a player who broke Pete Rose's record in this sport. For ten points, name this sport played by Ichiro Suzuki, a longtime Seattle Mariner outfielder.**

ANSWER: baseball (accept descriptions of playing baseball in Japan)

(Bonus 2) Bathilda Bagshot's 1947 book *A History of Magic* became standard reading for generations of UK witches and wizards, including Harry Potter. For ten points each,

[Part A] Another history by Bathilda Bagshot describes the enchanted ceiling in the Great Hall of this school of witchcraft and wizardry, which is concealed from Muggles in the wilds of Scotland.

ANSWER: Hogwarts School of Witchcraft and Wizardry (accept Hogwarts: A History)

[Part B] In the early 1990s, Hogwarts first-years were assigned this textbook on magizoology, written by Newt Scamander. This book contains entries on flobberworms, fire crabs, and dragons, and was the subject of a 2016 Muggle-made documentary film starring Eddie Redmayne.

ANSWER: Fantastic Beasts and Where to Find Them (prompt on "Fantastic Beasts")

[Part C] During Harry Potter's second year at Hogwarts, an impressive seven books were assigned for the Defense Against the Dark Arts class, which was taught by this author of *Holidays with Hags*, *Travels with Trolls*, and *Gadding with Ghouls*.

ANSWER: Professor Gilderoy Lockhart

(Tossup 3) **Michigan Representative Mike Rogers worked for this organization for five years in the early 1990s, and is currently a candidate for one of its leadership positions. In October 2016, the head of this organization wrote a controversial letter to (*) Congress in which he announced ongoing inquiries regarding Hillary Clinton's use of an email server. For ten points, name this organization whose leader, James Comey, was fired in May.**

ANSWER: Federal Bureau of Investigation (accept FBI)

(Bonus 3) For ten points each, name the following cities on Lake Erie.

[Part A] This city in upstate New York, just downstream from Niagara Falls, annually gets feet of snow caused by Lake Erie. This city has the second most people in New York, after NYC.

ANSWER: Buffalo

[Part B] This Ohio city, the second most populous in Ohio, sits on the mouth of the Cuyahoga River, a river so polluted it has caught on fire several times.

ANSWER: Cleveland

[Part C] West of Cleveland, in nearly the exact middle of Northern Ohio, is this town of about 25,000 people. Its tourism industry is bolstered by Cedar Point amusement park.

ANSWER: Sandusky

(Tossup 4) **A character in this novel leads a hunting party to Castle Rock, where they find what they think is the Beast, but what is actually a dead airplane pilot. In this novel, Simon's death is predicted by an oracle that is actually a wild sow's head, and (*)** Roger murders Piggy, whose glasses and conch shell are fought over by Ralph and Jack, leaders of rival factions. For ten points, name this novel by William Golding about a group of young boys who get marooned on a deserted island.

ANSWER: Lord of the Flies

(Bonus 4) In a comic play by Aristophanes, Dionysus judges a contest between Aeschylus and Euripides, a pair of tragic playwrights from this city-state. For ten points each,

[Part A] Name this Greek city-state, which was also the home of Aristophanes.

ANSWER: Athens

[Part B] In Aristophanes's play, Dionysus travels to the underworld with this demigod to judge the contest between Aeschylus and Euripides. At the start of the play, Dionysus shows up comically dressed in this man's Nemean lion skin.

ANSWER: Heracles (accept Hercules)

[Part C] Dionysus and Heracles team up in this play by Aristophanes, which is named for a chorus of animals who sit in a lake and sing "brekekekax-koax-koax."

ANSWER: The Frogs (accept Bátrachoi; accept Ranae)

(Tossup 5) **This work's instrumentation includes a carillon; its premiere was supposed to use all the bells in the city's cathedrals, but Alexander II's assassination ended that plan. Folk music "fights with" the melody of (*)** "La Marseillaise" in this work, whose other melodies include the hymn "O Lord, Save Thy People" and "God Save the Tsar." For ten points, name this Pytor Tchaikovsky work that commemorates Napoleon's invasion of Russia in a certain year, complete with cannon fire.

ANSWER: the 1812 Overture (accept Festival Overture: the Year 1812)

(Bonus 5) This movement's name was coined by Louis Leroy upon seeing Claude Monet's painting of a sunrise over Le Havre. For ten points each,

[Part A] Name this art movement, which attempted to capture motion and light with quick, broad brushstrokes instead of focusing on minute detail.

ANSWER: Impressionism (accept Impressionist movement or art)

[Part B] This female American expatriate painted many Impressionist paintings of mothers and daughters, including *The Child's Bath*.

ANSWER: Mary Cassatt

[Part C] In another painting, Cassatt painted a mother holding her baby being transported by a man in blue in one of these vehicles. In a similarly-titled painting by Pierre-Auguste Renoir, a group of people in straw hats mingle around tables while on a break from enjoying these vehicles on the Seine.

ANSWER: boats (accept The Boating Party or The Luncheon of the Boating Party)

(Tossup 6) **This conflict was preceded by a campaign mounted by beggars under Peter Bartholomew. It was prompted by the Battle of Manzikert, which allowed the Seljuks to capture all of Anatolia. One side entered this conflict, rallying to the cry of (*) "Deus vult!"** at the Council of Clermont; that meeting was convened by Pope Urban II to offer military support to the Byzantines. For ten points, name this 11th century Christian effort to reclaim Jerusalem, the first of its kind.

ANSWER: First Crusade (prompt on Crusade(s))

(Bonus 6) The first holder of this post negotiated a namesake 1795 trade treaty with Great Britain. For ten points each,

[Part A] Name this political position first held by John Jay, the highest judicial post in the United States.

ANSWER: Chief Justice of the Supreme Court (prompt on justice, but do not prompt on associate justice)

[Part B] As part of Jay's Treaty, Great Britain agreed to withdraw from this territory, where it had previously supported a Native American coalition against U.S. forces led by Anthony Wayne.

ANSWER: Northwest Territory

[Part C] John Jay wrote four of the five initial essays in this collection, which was mostly written by James Madison and Alexander Hamilton. This collection argued in favor of the Constitution.

ANSWER: The Federalist Papers

(Tossup 7) **This object was studied by the first spacecraft to ever be launched from a space shuttle, the Magellan probe. The transit of this planet over the sun occurs in pairs separated by 8 years, the last being in 2004 and 2012. This planet has the longest (*) day of all planets, even longer than its year. This planet with a thick, sulfurous atmosphere and a runaway greenhouse effect is the one closest in size to that of the Earth. For ten points, name the second planet from the Sun.**

ANSWER: Venus

(Bonus 7) Name the following structures of the eye for ten points each.

[Part A] People with heterochromia have eyes with two different colors of this structure.

ANSWER: iris

[Part B] This black hole within the iris lets light through to the retina. This structure dilates in response to bright light.

ANSWER: pupil

[Part C] This transparent part of the eye covers the pupil and iris, as well as the anterior chamber, which is filled with aqueous humor. This outermost part of the eye does most of the work in focusing an image.

ANSWER: cornea

Sixty Second Rounds

The categories are ...

1. The One Thousand and One Nights
2. Chinese Foreign Relations
3. Pressure
4. The Trojan War

THE ONE THOUSAND AND ONE NIGHTS

In Antoine Gallard's translation of *One Thousand and One Nights*, Shahryar hears stories about...

(1) This man, who gets three wishes from a djinn after rubbing an oil lamp.

ANSWER: Aladdin

(2) This sailor, who encounters rocs on his seven voyages.

ANSWER: Sinbad (accept Sindbad)

(3) This man, who steals gold from forty thieves.

ANSWER: Ali Baba

(4) This phrase, which magically opens the Forty Thieves' cave.

ANSWER: Open Sesame (accept Sesame, Open; accept Sésame Ouvre-toi)

(5) These objects, which Morgiana dances with to kill the leader of the Forty Thieves.

ANSWER: swords

(6) This woman tells all of those stories to Shahryar.

ANSWER: Scheherazade (accept Shahrazad)

CHINESE FOREIGN RELATIONS

Name the...

(1) Capital of China, where the US Embassy is located.

ANSWER: **Beijing**

(2) International organization that gave China a permanent seat on its otherwise all-western hemisphere Security Council in 1971.

ANSWER: **United Nations**

(3) First US President to visit China, doing so in 1972.

ANSWER: Richard **Nixon**

(4) Italian traveler who detailed his experiences on the Silk Road and China in his *Book of the Marvels of the World*.

ANSWER: Marco **Polo**

(5) Drug that names two wars between China and the UK, the first of which began after China banned the trade of this drug.

ANSWER: **Opium** (War(s))

(6) Uprising led by the Righteous and Harmonious Fists against European spheres of influence in China.

ANSWER: **Boxer** Rebellion

PRESSURE

Considering the physical quantity pressure, name the...

(1) Other quantity it's inversely proportional to, according to Boyle's Law for gasses, the amount of space a substance takes up.

ANSWER: volume

(2) Non-SI unit of pressure that is defined as "normal" by NIST and is named for the layer of gasses surrounding Earth.

ANSWER: standard atmosphere

(3) Frenchman who names the SI unit of pressure.

ANSWER: Blaise Pascal

(4) Unit of force that, per square meter, is equivalent to the SI unit of pressure.

ANSWER: 1 newton

(5) Device used to measure pressure changes due to weather, often using a column of liquid water or mercury.

ANSWER: barometer

(6) Device that measures pressure within blood vessels, usually via a cuff around the arm.

ANSWER: sphygmomanometer [s'fig-mo-man-ah-meter]

THE TROJAN WAR

In the Trojan War, who or what is the...

(1) Wooden “gift” in which the Greeks entered Troy to attack from inside the city?

ANSWER: Trojan **horse** (accept wooden **horse**)

(2) Greek god of war who fought on the Trojan side?

ANSWER: **Ares**

(3) Beautiful Trojan princess whose abduction sparked the war?

ANSWER: **Helen** of Troy

(4) Greek hero who was almost entirely invincible, with the exception of his heel?

ANSWER: **Achilles**

(5) Trojan prince who abducted the beautiful daughter of Zeus and Leda to start the war?

ANSWER: **Paris**

(6) Greek hero who competed with Odysseus for the armor of a nearly-invincible Greek warrior?

ANSWER: **Ajax** the Great(er) (accept **Aias**; accept Telamonian **Ajax** or **Aias**)

Second Half

(Tossup 8) **One author from this country wrote a tetralogy that ends with *The Decay of the Angel* and follows the reincarnations of the protagonist's classmate, who has three moles on his side. *The Sea of Fertility* is by an author from this country, where another author wrote *The Wind-Up Bird Chronicle* about (*)** Tohru Okada's search for a lost cat. For ten points, name this home country of Yukio Mishima, Haruki Murakami, and the early novel *The Tale of Genji*.

ANSWER: Japan (accept Nippon-koku; accept Nihon-koku)

(Bonus 8) This character adopts the mottos "I will work harder," and "Comrade Napoleon is always right." For ten points each,

[Part A] Name this work horse who is sold to a glue factory by Napoleon, a power-hungry pig, in a work by George Orwell.

ANSWER: Boxer

[Part B] Boxer represents the working class in this Orwell novel, which is an allegory for the Bolshevik Revolution.

ANSWER: Animal Farm

[Part C] In *Animal Farm*, the easily-led masses are represented by this kind of animal. These animals are taught to obediently recite "four legs good, two legs bad" until Napoleon teaches them to say "four legs good, two legs better."

ANSWER: sheep

(Tossup 9) **After reaching this location, Annie Moore was given a \$10 gold coin. People at this location were given a 29 question survey asking, for example, "how many stripes are on our flag?" This location's inflow fell after a 1924 act allowed (*)** processing to also occur at foreign embassies. This location was originally part of the Statue of Liberty National Monument. For ten points, name this island in New York bay where over 12 million immigrants passed through on their way to the US.

ANSWER: Ellis Island

(Bonus 9) This country's Cerro Rico mountain near its city of Potosi was responsible for a majority of the world's silver in the sixteenth century. For ten points each,

[Part A] Name this South American country with two capitals at La Paz and Sucre.

ANSWER: Bolivia

[Part B] Bolivia lost most of its part of the Gran Chaco region in a war against this country. This country had earlier lost the War of the Triple Alliance to Brazil, Argentina, and Uruguay.

ANSWER: Paraguay

[Part C] Bolivia lost its coastline on this ocean to Chile in the 19th century after a war named for it.

ANSWER: Pacific Ocean (accept War of the Pacific)

(Tossup 10) **This body part in humans is likely evolved from the most anterior pharyngeal arch in early species of fish. The absence of this body part is the defining characteristic of hagfish and lamprey. In humans, the upper section of this body part is known as the (*) maxilla and the lower section is known as the mandible. Tetanus is also named for the "locking" of this body part. For ten points, name this bony structure found around the mouth, involved in chewing.**

ANSWER: jawbones

(Bonus 10) This is the lightest halogen on the periodic table. For ten points each,

[Part A] Name this element with atomic number 9 and atomic symbol F.

ANSWER: fluorine

[Part B] Fluorine has the highest value of this quantity, a measurement for how strongly an element attracts electrons.

ANSWER: electronegativity

[Part C] This American chemist names a common scale for electronegativity. He also proposed the idea of hybrid orbitals and, less soundly, advocated for Vitamin C megadoses.

ANSWER: Linus (Carl) Pauling

(Tossup 11) **This term was popularized by the Karel Čapek play *R.U.R.* about a company that manufactures "Rossum's Universal" ones of these machines. Susan Calvin narrates a story collection that introduced Isaac Asimov's (*) Three Laws of these machines, which include the directive to obey and not to harm humans. For ten points, name these complicated, often humanoid, machines that are capable of performing complex actions automatically.**

ANSWER: robots (anti-prompt on Android or Gynoid by asking "can you be less specific?")

(Bonus 11) In this play, Stanley Kowalski fights with his sister-in-law after she leaves Belle Reve estate and moves in with him and his wife, Stella. For ten points each,

[Part A] Name this play in which Stella's sister, Blanche DuBois, declares that she has "always depended on the kindness of strangers" while being escorted to a mental care facility.

ANSWER: A Streetcar Named Desire

[Part B] *A Streetcar Named Desire* is by this American playwright of *The Glass Menagerie* and *Cat on a Hot Tin Roof*.

ANSWER: Thomas Lanier "Tennessee" Williams III

[Part C] *A Streetcar Named Desire* is set in the French Quarter of this Louisiana city known for its extravagant Mardi Gras celebrations.

ANSWER: New Orleans

(Tossup 12) **This ruler's spymaster, Francis Walsingham, was able to thwart both the Ridolfi and Babington plots. A privateer employed by this ruler boasted of "singeing the beard" of the King of Spain after a raid on Cadiz. Francis (*)** Drake served this ruler, who, while facing an invasion from the Spanish Armada, rallied troops by declaring that she had the "heart and stomach of a king." For ten points, name this Tudor monarch, a "Virgin Queen" of England.

ANSWER: Elizabeth I

(Bonus 12) One of these objects named the *Dreadnought* sparked an arms race prior to World War I.

[Part A] Name these military vehicles that the German High Seas Fleet and Britain's Royal Navy raced to construct.

ANSWER: battleships (prompt on ship and similar generic terms; do not accept or prompt on destroyer, carrier, gunboat, or other specific types of ship)

[Part B] The expansion of the German navy was undertaken by this Kaiser who led the country into World War I.

ANSWER: Wilhelm II (prompt on Wilhelm)

[Part C] Wilhelm II provoked an international crisis when he sent a gunboat to this African nation; that action prompted France to annex this country in the Treaty of Fez, named for one of its cities.

ANSWER: Morocco

(Tossup 13) **This god caused the death of nine slaves by tossing a scythe into the air while he was stealing the mead of poetry. Along with his brothers Vili and Ve, this god killed the giant Ymir, thus fashioning the parts of the world including (*)** Midgard. For ten points, name this husband of Frigg and father of Thor, the chief god of the Norse pantheon.

ANSWER: Odin (accept Wotan)

(Bonus 13) The book of Numbers outlines the organization of the Tribes of Israel after they left Egypt and before they reached the promised land of Canaan. For ten points each,

[Part A] Give the birth name of the father of the Tribes of Israel, which are named after Reuben, Simeon, Judah, and the rest of this man's twelve sons and their descendants.

ANSWER: Jacob (accept Ya'akov; accept Ya'qub; prompt on Israel)

[Part B] Ephraim and Manasseh, two descendants of this son of Jacob, lend their names to two of the twelve tribes. This man inadvertently allowed the Israelites to become slaves when he became the Pharaoh's right-hand man and brought them to Egypt during a famine.

ANSWER: Joseph (accept Yosef; accept Yusuf)

[Part C] Joseph's sons name two of the Tribes of Israel because the tribe of this son of Jacob is not counted in Numbers. This man's tribe served as tenders of the Tabernacle and the Ark of the Covenant.

ANSWER: Levi (accept Levites)

(Tossup 14) **The Strong Law of Large Numbers states that this value for a sequence of random trials converges to the expected value. Z-scores measure how many standard deviations a data point is from this value. For a set of positive numbers, this value is at least as big as a similarly named (*) geometric value, according to the AM-GM Inequality. This value can be computed by summing all data sets and dividing by the number of terms. For ten points, name this statistic often calculated with the median and mode.**

ANSWER: arithmetic mean (accept average)

(Bonus 14) A system of math begins with certain statements that are assumed to be true, without any proof. For ten points each,

[Part A] Give either common name for this type of statement. Examples of this type of statement include "all right angles are congruent," one of five listed after 23 definitions at the start of a 4th century BC text.

ANSWER: postulates or axioms (accept, but do NOT otherwise reveal, Euclid's postulates or axioms)

[Part B] This ancient Greek mathematician outlined the common definitions and axioms of geometry in his *Elements*.

ANSWER: Euclid [yoo-klid] of Alexandria

[Part C] Euclid's fifth postulate describes when two lines will have this property. For centuries, geometers were convinced they could prove the fifth postulate by just using the other four; you can't, but you *can* remove the fifth postulate and create systems like spherical geometry where this property works very differently.

ANSWER: the lines will or will not intersect (accept the lines are or are not parallel; accept any description thereof)

Extra Question

Only read if you need a backup or tiebreaker!

(Tossup 15) **In a Nikolai Gogol short story, the civil servant Poprishchin produces this type of object “of a Madman.” A woman who produced another of these works describes her attraction to Peter van Pels, and addresses her work of this type as (*) “Kitty” while she evades the Nazi occupation of the Netherlands in a loft. For ten points, Anne Frank produced what type of record of events in one’s life?**

ANSWER: diary (accept Diary of a Madman; accept The Diary of a Young Girl; accept The Diary of Anne Frank)

(Bonus 15) This man secured Venezuelan independence with a victory over Miguel de la Torre at Carabobo. For ten points each,

[Part A] Name this man, known as the “Liberator” for his role in granting South America independence.

ANSWER: Simon Bolivar

[Part B] Bolivar fought for independence against this European country, which colonized the northern and western regions of South America.

ANSWER: Spain

[Part C] Bolivar’s military victories allowed him to create this large republic that encompassed most of northern South America. It included Ecuador and the modern-day country with which it shares a name.

ANSWER: Gran Colombia (prompt on Colombia)