

2015 OAC States – Round 4

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Category Round

American Literature: Name these authors who created fictional countries.

Team A: What author of “The Yellow Wallpaper” imagined a utopia in which women are the only members of society in a work called *Herland*?

ANSWER: Charlotte Perkins **Gilman**

Team B: What author of *The Rise of Silas Lapham* (LAY-fum) wrote about Mr. Twelvemough (TWELF-moth), who learns about an ideal society from the title figure, in *A Traveller from Altruria*?

ANSWER: William Dean **Howells**

Tossup: This author imagined that circus clowns are manufactured and balloons are grown as crops in a fictional country named Balloon Picker’s Country, which appears in his short story collection *Rootabaga* (roo-tuh-BAY-guh) *Stories*. In one poem, the title entity beckons the reader to “pile them high at Gettysburg, And pile them high at Ypres (EEP-ruh) and Verdun (vair-DUN).” In another poem, he noted how the title weather phenomenon “comes on little cat feet.” This poet of “Grass” and “Fog” wrote about the “tool maker”, “stacker of wheat”, and “hog butcher for the world” in his poem about the “City of Big Shoulders.” Name this author of the poem “Chicago.”

ANSWER: Carl August **Sandburg**

Mathematics: Answer some questions about probability.

Team B: What sort of function, often used in probability theory, gives the probability that a value will take on a value less than or equal to x .

ANSWER: **cumulative** distribution function [or **cdf**]

Team A: Give the two values that all cumulative distribution functions take on at negative infinity and infinity, respectively. Make sure you give the answer for negative infinity first, and your answer for infinity second.

ANSWER: **zero and one** or **0 and 1** [answer must be in order]

Tossup: This adjective describes variables whose cumulative distribution functions are a series of step functions. This adjective also describes certain statistical distributions such as the geometric distribution, but not the exponential. It thus describes variables defined by probability mass functions instead of probability density functions. The field of mathematics described by this word studies countable sets. The opposite of this term describes variables that can only take on values in between two specified values. Name this word, this opposite of continuous.

ANSWER: **discrete** [accept word forms; do not accept “discontinuous” or any such answers]

World History: Name these European nations.

Team A: The House of Aviz was a dynasty that ruled what nation, which is entirely located within the boundaries of the Roman province of Lusitania?

ANSWER: Portugal [or Portuguese Republic or Republica Portuguesa]

Team B: Ismael Qemali was one leader of the independence movement that led to the establishment of what nation, which was ruled by King Zog until he was deposed at the start of World War 2?

ANSWER: Republic of Albania [or Shqiperia or Republika e Shqiperise]

Tossup: During World War 2, this nation was home to resistance fighters known as the “cursed soldiers.” A 1926 coup in this country led to the rise of the Sanation movement. During the Middle Ages this country was ruled by the Piast Dynasty, and a later king of this country successfully defended against Kara Mustafa Pasha at the 1683 Battle of Vienna; that king was John Sobieski. Following World War 2, this nation’s eastern border was set at the Curzon Line. In the late 1700s, this country was subject to three partitions while part of a commonwealth with Lithuania. In 1980, the Solidarity trade union was founded by Lech Walesa in its city of Gdansk. Name this eastern European nation which was invaded by Nazi Germany to start World War 2.

ANSWER: Republic of Poland [or Rzeczpospolita Polska]

Fine Arts: Name the following artists of paintings depicting horses.

Team B: This Swiss-born painter depicted a horse peering its head through a curtain while an incubus sits on the chest of a sleeping woman in his best known painting, *The Nightmare*.

ANSWER: Henry Fuseli [or Johann Heinrich Fussli]

Team A: A white horse is stabbed in the chest while its bloodied rider is being pulled off head-first in this artist’s painting *The Charge of the Mamelukes*, which was inspired by a rebellion against French troops.

ANSWER: Francisco Jose de Goya y Lucientes

Tossup: One painting by this artist depicts several horses being held by their handlers behind a rope just before the start of a race in the Italian capital. This artist of *Riderless Racers at Rome* depicted four horses mid-stride during the title event in his painting *The 1821 Derby at Epsom*. A “man suffering from delusions of military rank” was the subject of one of his paintings from a series of portraits of mental asylum patients that also included *Portrait of a Kleptomaniac*. In his best known painting, a barely-visible ship named the *Argus* draws the attention of several people, including a black man who waves a red cloth while standing atop a barrel. The aftermath of an 1816 shipwreck is the subject of the best known work by what early 19th century French artist who painted *The Raft of the Medusa*?

ANSWER: Jean-Louis Andre Theodore Gericault (TAY-oh-door ZHAIR-ih-koh)

Life Science: Answer some questions about invasive species.

Team A: These mollusks are a significant problem in the eastern United States, including in the Great Lakes. They are especially problematic due to their ability to attach to man-made objects and clog pipes.

ANSWER: zebra mussels [or Dreissena polymorpha; prompt on “mussels”]

Team B: This Asian plant was intentionally introduced to the United States as a way of controlling soil erosion, but it has since spread over the South, outcompeting other plants by growing over them.

ANSWER: kudzu [or Pueraria lobata]

Tossup: In this country, the myxoma virus was used to successfully control the spread of invasive rabbits. Many members of an animal species native to this country are infected with a facial tumor disease that can spread between individuals. A failed attempt to control cane beetle populations in this country introduced the cane toad, which has since then become a problematic invasive species here. One animal endemic to this country uses electroreceptors on its body to navigate underwater; that animal is an egg-laying mammal that has a duck-like bill. Name this country that is home to the platypus and marsupials such as Tasmanian devils and kangaroos.

ANSWER: Commonwealth of Australia

English / World Literature: Questions in this category will deal with the Elizabethan playwright Christopher Marlowe.

Team B: George Chapman finished what incomplete poem by Christopher Marlowe, which is about a young man of Abydos who swims across the Hellespont to see his lover?

ANSWER: “Hero and Leander”

Team A: Christopher Marlowe also wrote a play in two parts about what Asian emperor who, among other things, dispatches Mycetes (“my”-SEE-teez) and forces Princess Zenocrate (zeh-NOK-ruh-tay) to be his wife?

ANSWER: Tamerlane or Emir Timur the Lame [or Tarmashirin Khan Barlas or Timur Beg Gurkhani; accept Tamburlaine the Great]

Tossup: This novelist imagined Christopher Marlowe as a homosexual spy who exposes the Babington Plot in *A Dead Man in Deptford*. The life story of Kenneth Toomey is the subject of this author’s literary masterpiece, *Earthly Powers*. The protagonist of one of his novels visits a public library to learn of a way to commit suicide painlessly. After killing the Cat Lady, the protagonist of that novel by this man undergoes a form of aversion therapy that makes Beethoven’s 9th Symphony unlistenable for him; that treatment is called the Ludovico technique. Name this English novelist who wrote about Alex and his “droogs” in *A Clockwork Orange*.

ANSWER: John Anthony Burgess Wilson

American Government / Economics: Answer the following about public economics.

Team A: A lighthouse is a public good, and thus an example of what problem, in which those who did not pay for a good still benefit from it anyways?

ANSWER: **free rider** problem

Team B: Erik Lindahl suggested that the free rider problem be solved by taxing individuals based on this quantity, which is defined as the satisfaction gained from a good.

ANSWER: total **utility**

Tossup: Arthur Pigou's (PEE-gohz) namesake tax is used to prevent the public from creating these situations. George Stigler studied capture theory, which focuses on how third-party agencies rectify these situations. In "The Problem of Social Cost", Ronald Coase theorized that these phenomena can be solved without outside intervention. These can be positive, such as the construction of an airport or a beautiful concert, or negative, such as loud noise or air pollution. Name these economic phenomena that affect those not involved in a financial transaction.

ANSWER: **externality** [or **externalities**]

Physical Science: Answer the following about tides.

Team B: The Roche (rowsh) limit gives the limit at which tidal forces overcome gravitational forces, leading a body to disintegrate and usually form what kind of planetary structure?

ANSWER: planetary **rings**

Team A: The gravitational gradient of a body can lead to tidal locking, in which this type of orbit occurs. This kind of orbit occurs when one half of an orbiting body always faces the other orbiting body.

ANSWER: **synchronous** orbit [accept word forms]

Tossup: This scientist used equations from fluid dynamics to derive a set of partial differential equations that model tidal flows. In *A Philosophical Essay on Probabilities*, this scientist posited a being that knows the position and momentum of every particle, and thus knows the fate of the universe; that is this physicist's namesake "demon." This scientist's namesake calculus operator is the divergence of the gradient and appears in his namesake equation, which gives the behavior of potentials. Name this French physicist who first posited the notion of a black hole.

ANSWER: Pierre-Simon, marquis de **Laplace** (luh-PLAHSS)

Geography: Name these Pacific Ocean islands or island groups.

Team A: The Koro Sea is located among this archipelago whose two largest islands are Vanua Levu and Viti Levu, the latter of which contains its most populous city, Suva.

ANSWER: Republic of Fiji [or Matanitu ko Viti]

Team B: The first European settlement of this island occurred under the leadership of Fletcher Christian in the aftermath of a 1789 mutiny that ousted William Bligh as commander of the HMS *Bounty*.

ANSWER: Pitcairn Island

Tossup: The frequently erupting volcano known as “Kavachi’s oven” is part of this archipelago, which received its name from the first European to discover it, Alvaro de Mendana. During World War 2, an Allied offensive to capture one island in this archipelago was known as Operation Watchtower. Bougainville is the largest island in this archipelago, which is just southeast of the Bismarck Archipelago. A sea sharing its name with these islands separates them from the east coast of New Guinea. The country that shares its name with this archipelago has its capital at Honiara on the island of Guadalcanal. Name this Melanesian island group that shares its name with a rich, Biblical king.

ANSWER: Solomon Islands [or Solomons]

American History: Give the following related to the social history of the U.S.

Team A: Attorney Wayne Wheeler was a major proponent of this movement, which was notably espoused by Carrie Nation through the use of a hatchet.

ANSWER: temperance movement [accept equivalents that indicate banning alcohol or Prohibition of alcohol]

Team B: Various rights related to these entities were protected with the passage of the Norris-La Guardia Act. One of the first of these entities to have large influence was most famously led by Terence Powderly.

ANSWER: labor unions [or trade unions]

Tossup: One advocate of this cause formulated the “New Departure” Strategy, which was abandoned after the Supreme Court ruling in *Minor v. Happersett*. Senator Aaron Sargent first introduced the verbiage that ultimately granted this right, which was confirmed as valid in the Supreme Court case *Leser v. Garnett*. The “Silent Sentinels” fought for this cause under the leadership of Alice Paul. Securing this right was the goal of the NAWSA (“N”-“A”-“W”-“S”-“A”), whose presidents included Carrie Chapman Catt and Elizabeth Cady Stanton. This right was granted by the so-called “Susan B. Anthony Amendment.” Name this right that was guaranteed in 1920 with the passage of the 19th Amendment.

ANSWER: women’s suffrage or women’s right to vote [accept equivalents that mention both voting and women; prompt on “suffrage” or “right to vote” or similar answers that don’t include “women”]

Alphabet Round – Letter V

1. **(TWO WORD ANSWER)** – This novelist’s books include *The Time of the Hero* and *The Dream of the Celt*, the latter of which fictionalizes the life of Roger Casement.
2. **(TWO WORD ANSWER)** – Term used for the South Vietnamese army which fought with North Vietnam against the United States in the Vietnam War.
3. Element with atomic number 23.
4. 16th century Renaissance painter of *The Wedding at Cana*, the largest painting currently housed at the Louvre.
5. This adjective describes the sword that went “snicker-snack” in Lewis Carroll’s poem “Jabberwocky.”
6. Fifth avatar of Vishnu, who is often depicted as either a dwarf or a giant.
7. Named for a longtime U.S. Representative from Georgia, this mountain is the highest in Antarctica.
8. A confession by George Wilson led to the 1822 arrest and execution of this freedman who attempted to organize a large slave rebellion in Charleston, South Carolina.
9. This Italian philosopher proposed a cyclical theory of history that influenced centuries of historiography in his book *The New Science*.
10. Structures that form the lining of the small intestine, where nutrients pass into the bloodstream.
11. This unnamed, title character of a novel by Owen Wister is the subject of what is often called the first Western novel. He works at Medicine Bow and refuses to shoot down his mortal enemy, Trampas, in the back.
12. Averni tribesman who was held captive for five years then executed following his capture at the Battle of Alesia.
13. **(ONE OR TWO WORD ANSWER)** – In the ancient Roman religion, the women in this office held it for 30 years. If a person sentenced to death was seen by one of these figures, they were automatically pardoned.
14. This Italian physicist is credited with the invention of the battery. A unit named for him is defined as one joule per coulomb.
15. Baroque composer who is best known for a set of violin concerti, *The Four Seasons*.
16. This case is used in Latin when addressing a person; in the sentence “Felix, your cat wants to eat these vegetables” the word “Felix” would be in this case.
17. This author wrote *Timequake* and set many of his novels in the town of Ilium, such as his one about Paul Proteus, *Player Piano*.
18. 16th century Florentine explorer who was the first European to sail through New York Harbor, which is now spanned by a namesake bridge.
19. This Italian art historian coined the term “renaissance” in his *Lives of the Most Excellent Painters, Sculptors and Architects*.
20. This French chemist and earth scientist is best known for developing the flame fusion process, sometimes named for him, which allows one to artificially synthesize rubies and sapphires.

Alphabet Round – Letter V Answers

1. Jorge Mario Pedro Vargas Llosa (VAR-gus YOH-suh) [or the 1st Marquis of Vargas Llosa] (TWO WORD ANSWER)
2. Viet Cong (TWO WORD ANSWER)
3. vanadium
4. Paolo Veronese (VAIR-uh-NAY-see)
5. vorpai
6. Vamana
7. Vinson Massif [or Mount Vinson]
8. Denmark Vesey
9. Giovan Battista Giambattista Vico
10. villus or villi
11. The Virginian
12. Vercingetorix (vur-sin-JEH-tuh-riks)
13. Vestals or Vestal Virgins [accept Vestalis or Vestales] (ONE OR TWO WORD ANSWER)
14. Alessandro Giuseppe Antonio Anastasio Volta
15. Antonio Lucio Vivaldi
16. vocative case
17. Kurt Vonnegut Jr.
18. Giovanni da Verrazzano (veh-ruh-ZAH-noh)
19. Giorgio Vasari
20. Auguste Victor Louis Verneuil (VAIR-nuh-eel)

Lightning Round

1. This president established a reservation in Nebraska for the Ponca tribe after a successful suit brought by Chief Standing Bear. After settling a South American border dispute, a department in Paraguay was named after him. This president noted that “he serves his party best who serves his country best” in his inaugural address after being elected alongside William Wheeler. Name this President who defeated Samuel Tilden by agreeing to end Reconstruction as part of the Compromise of 1876.

ANSWER: Rutherford Birchard Hayes

2. A law named after this surname and Weiss describes the magnetic susceptibility of a ferromagnet. That law predicts a discontinuity at a temperature identified with this name, which implies that the ferromagnet has a spontaneous magnetization. At that point with this name, magnetic spins become randomly aligned. Give this surname of the French husband and wife team who studied radioactivity, Pierre and Marie.

ANSWER: Curie [accept Pierre Curie or Marie Salomea Sklodowska Curie; accept Curie-Weiss law or Curie temperature or Curie point]

3. This man’s namesake distribution is a power law function whose variance is infinite if the alpha parameter is between one and zero. He introduced a concept of purely economic satisfaction that has been termed ophelimity. Along with Leon Walras (LAY-ohn WALL-rah), he led the Lausanne (LO-zahn) school of neoclassical economics. The principle that eighty percent of the work is done by twenty percent of the populace is attributed to what Italian economist?

ANSWER: Vilfredo Federico Damaso Pareto

4. A four year long investigation into this policy was conducted after Jose Rodriguez ordered the destruction of videotapes in 2005. That investigation was conducted by Dianne Feinstein, who found that the White House had been misled about this policy’s effectiveness. A certain agency in that investigation euphemistically referred to this policy as “enhanced interrogation techniques.” Name this action that was the subject of a recently declassified Senate Intelligence Committee report which concluded that its use by the CIA was ineffective for acquiring intelligence.

ANSWER: torture [prompt on specific acts of torture, such as “waterboarding”, “sleep deprivation”, etc.]

5. This author wrote “the everlasting universe of things flows through the mind and rolls its rapid waves” at the beginning of “Mont-Blanc.” In another poem, this writer states “Higher still and higher from the earth thou springest like a cloud of fire” in describing the title figure, who “pourest thy full heart...from Heaven, or near it.” That poem begins “hail to thee, blithe spirit” and is addressed to the title bird. Name this British romantic poet who wrote “To a Skylark.”

ANSWER: Percy Bysshe Shelley

6. Independently of Joseph Le Bel, this scientist made the first studies of stereo·chemistry when examining different isomers of carbon-containing molecules. This scientist names an equation that relates the change in the equilibrium constant of a reaction to the temperature. His work with solutions led to him becoming the first recipient of the Nobel Prize in Chemistry. Give this Dutch scientist who names a factor that is used to calculate the extent of the effects of colligative properties.

ANSWER: Jacobus Henricus van ’t Hoff Jr. [accept van ’t Hoff equation or van ’t Hoff factor]

7. Prior to this war, Alexander Leslie led the Army of the Covenant in a rebellion known as the Bishops’ Wars. This conflict began shortly after an attempt to arrest the so-called “Five Members” was rebuffed by William Lenthall. The Treaty of Newport was a failed attempt to end this war. Pride’s Purge occurred during this conflict, which saw Prince Rupert of the Rhine defeated at the Battle of Naseby by Oliver Cromwell. Name this 1642 to 1651 conflict which included the execution of King Charles I (the first).

ANSWER: English Civil War(s) [or British Civil War(s); prompt on “War(s) of the Three Kingdoms”; do not prompt on or accept “Civil War”]

8. This city was home to the carver Hercules Courtenay, who worked with cabinetmaker Benjamin Randolph to make furniture in its namesake Chippendale style. Its tallest building, the Comcast Center skyscraper, was designed by Robert Stern. John Pass and John Stow recast a certain instrument in this city that formerly resided in its Independence Hall. Name this American city known for its Quaker furniture and the Liberty Bell.

ANSWER: Philadelphia, Pennsylvania

9. One of this author's last novels is narrated by Cain, who comes to believe that God is a tyrant. The bank clerk Sassa and schoolteacher Anico are main characters in another of his novels, which imagines that Iberia has broken off from the rest of Europe. In another of his books, the doctor's wife assists a group of people who have been stricken with an illness in which they only see white. The novels *The Stone Raft* and *Blindness* were written by what Nobel laureate from Portugal?

ANSWER: Jose de Sousa **Saramago**

10. A Barbara Rose work entitled "[this artist] Painting" described how he created a painting on glass while Hans Namuth filmed from underneath. Clement Greenberg proposed the name of one work by this artist which features his handprints in the upper right corner. Paintings known as *Blue Poles* and *Autumn Rhythm* were created using a technique that he also used to create a painting titled *Number 1, 1950*, which is known as *Lavender Mist*. Name this American abstract expressionist painter nicknamed "Jack the Dripper."

ANSWER: Paul Jackson **Pollock**

11. These entities may be classified as aphanatic or phaneritic, depending on the texture caused by the crystals within them. They can be classified as felsic or mafic depending on their iron and magnesium content. A third way of classifying these entities is to call them intrusive if they form inside other rock, or extrusive if they form in the open air. Name this class of rocks that include basalt and granite, which are neither metamorphic nor sedimentary.

ANSWER: **igneous** rocks

12. William Sullivan narrowly missed involvement in this event due to his dismissal and replacement by Bruce Laingen. Ending this event was the goal of Operation Credible Sport, which was abandoned after the announcement of the Algiers Accords. Ambassador Ken Taylor helped six people avoid involvement in this event as part of the so-called "Canadian caper", which saw those individuals impersonate members of a film crew. Name this 444 day event that ended on Ronald Reagan's inauguration day and was centered on the U.S. Embassy at Tehran.

ANSWER: **Iranian** **hostage** crisis [accept any reasonable equivalent that contains both **Iran** and **hostage(s)**]

13. One speech during this event references a whole body that both "go[es] into" and is "thrown into" a land called Gahenna. The speaker at this event asks the question "if salt loses its taste, with what can it be seasoned?". Listeners were told not to "throw your pearls before swine" during this event, one section of which is identified as Matthew's Antitheses. This event included the promulgation of the Golden Rule and Lord's Prayer. Name this Biblical event during which the Beatitudes were given by Jesus.

ANSWER: **Sermon on the Mount**

14. At the opening of the play named for this character, the audience is asked to imagine that a "Muse of Fire" is present so that the audience can use their imaginations to envision war scenes. This character gives a speech that mentions "we few, we happy few, we band of brothers" during St. Crispin's Day. This man states "Once more unto the breach" while rallying his troops at the Battle of Agincourt. Shakespeare wrote a play named after what King of England who was the second ruler from the House of Lancaster?

ANSWER: **Henry V** (the fifth) [accept **Prince Hal**, prompt on "Henry" or "Hal"]

15. The use of these enzymes followed by gel electrophoresis is carried out in RFLP (rif-lip) analysis. These enzymes are used in molecular cloning, often to insert a target gene into a vector such as a plasmid. EcoRI ("eco"- "R"- "one") and HindIII (hin- "D"- "three") are examples of these enzymes, which either create blunt ends or sticky ends. Name these enzymes which recognize specific sequences to cut DNA.

ANSWER: **restriction** enzymes [or **restriction endonucleases**]

16. Several residents of this colony were tortured to death in an event dubbed the "Nine Men's Misery." Off the coast of this colony, Abraham Whipple burned a British ship that had been chasing the *Hannah* as part of the *Gaspee* Affair. One predecessor to this colony was led by William Coddington, who had earlier left the Massachusetts Bay Colony with a group that included Anne Hutchinson. Name this American colony formed partly out of the Providence Plantations, which was founded by Roger Williams.

ANSWER: Colony of **Rhode Island** and Providence Plantations

17. Composer and genre required. In one of these compositions, the oboe plays a repeating dotted eighth-sixteenth on F, leading to its nickname of “The Hen.” Another of these pieces got its nickname from the use of “Turkish” instruments, such as the triangle, bass (“base”) drum, and cymbals, in its second movement. An earlier example of these pieces ends with all except two violinists leaving the stage. Name this type of composition that includes ones nicknamed “Military” and “Farewell.”

ANSWER: symphony by Franz Joseph Haydn [prompt on partial answer]

18. This city contains a shopping neighborhood known as “The Nine Streets”, and it is home to a floating flower market along a waterway named Singel. The De Wallen (deh VAH-len) district is a notorious area within this city, which is at the termination of the Amstel River. This home to the Rijksmuseum (RYKES-“museum”) is located among several concentric, half-circle canals. Its notable tourist attractions include the Anne Frank House and its red light district, which contains many cannabis coffeeshops. Name this capital of the Netherlands.

ANSWER: Amsterdam

19. According to one myth, Apollo turned himself into a tortoise then one of these creatures in order to seduce Dryope (DRY-oh-pee). Two of these creatures licked the ears of Melampus to give him the ability to understand animals. One of these creatures who had multiple heads and lived near Lake Lerna was killed with the help of Iolaus (ee-OH-“louse”). Shortly after being born, Heracles strangled two of these animals sent to kill him. The mythical Hydra was what type of animal that comprised the hair of Gorgons like Medusa?

ANSWER: snakes or serpents

20. One work by this author recounts the story of a priest named Linus Fairing who preaches to sewer rats in New York City; that novel follows the “whole sick crew” of the alligator hunter Benny Profane. A recent novel by this author features private investigator Doc Sportello and is titled *Inherent Vice*. A 1973 novel by this author, which had its Pulitzer Prize revoked, is set during World War 2 and features V-2 rockets destroying cities after Tyrone Slothrop has sex in them. Name this American author who wrote *V.* and *Gravity's Rainbow*.

ANSWER: Thomas Ruggles Pynchon Jr.