OSSAA 2024-2025
REGIONAL GAME 1

QUARTER 1
TOSS-UP QUESTIONS

1. This substance, which cannot be observed directly because it does not interact with electromagnetic radiation, is inferred through its gravitational effects on visible structures like galaxies. It makes up a significant portion of the universe's total mass, yet remains undetectable by conventional methods. What is this mysterious form of matter?

   Answer: Dark Matter

   Team 1:_____   Team 2:_____

2. This novel follows Mickey Bolitar, a teenager dealing with the mysterious disappearance of his father and the strange secrets surrounding his new school. As he uncovers a dangerous conspiracy involving his family and new friends, Mickey becomes entangled in a web of crime and intrigue. What is this young adult thriller by Harlan Coben?

   Answer: *Shelter*

   Team 1:_____   Team 2:_____

3. **Math Computation:** Solve the following inequality to find H: -6H + 25 > 7 [read: -6H plus 25 is greater than 7].

   Answer: H is less than 3 (or 3 is greater than H)

   Team 1:_____   Team 2:_____

4. This layer of skin, located beneath the epidermis, contains blood vessels, nerve endings, hair follicles, and sweat glands. It provides structural support and elasticity due to its collagen and elastin fibers, playing a crucial role in temperature regulation and sensation. What is this middle layer of skin called?

   Answer: Dermis

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 1
TOSS-UP QUESTIONS

5. This show released its fourth season in 2024 after a spin-off show, *Gen-V*, filled the gap between previous seasons. It saw many cast members return, such as Anthony Starr, Jack Quaid, and Karl Urban. What is this Amazon Prime series, based on comics of the same name, about mortals who take revenge against corrupt superheroes?

   Answer: *The Boys*

   Team 1:_____   Team 2:_____

6. This German military leader orchestrated the North African Campaign. He led the Afrika Korps in a series of battles against Allied forces. His tactics earned him respect from both allies and enemies alike as he led many key battles, including the Battle of El Alamein. Who is this World War II general known as the Desert Fox?

   Answer: Erwin Rommel

   Team 1:_____   Team 2:_____

7. This coach is known for his "Triangle Offense" and led the Chicago Bulls and the Los Angeles Lakers to multiple championships. He has a total of 11 NBA titles as a head coach, the most in NBA history. Who is this coach who is often referred to as the "Zen Master" due to his incorporation of mindfulness and meditation into his coaching?

   Answer: Phil Jackson

   Team 1:_____   Team 2:_____

8. This poem reflects the speaker's reaction to the loss of her home by fire, expressing both sorrow over the destruction and a deep faith in God's plan. The speaker ultimately finds comfort in the belief that earthly possessions are temporary and insignificant compared to eternal rewards. What is the title of this 1666 poem by Anne Bradstreet?

   Answer: *Upon the Burning of Our House*

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 1
TOSS-UP QUESTIONS

9. This U.S. Supreme Court case marked the first time the Court ruled that individual Americans have the right to own guns for personal use, including self-defense in their homes, under the Second Amendment. What is this 2008 case whose ruling specifically struck down a handgun ban?

    Answer: District of Columbia v. Heller

    Team 1:_____   Team 2:_____

10. **Math Computation:** What are the equations of the 2 slant asymptotes to the hyperbola with the following equation: $x^2/9 - y^2/16 = 1$ [read: x squared over 9 minus y squared over 16 equals 1].

    Answer: $y = \pm 4/3x$ [read: y equals plus or minus 4 over 3 x] (or $y = 4/3x$ & $y = -4/3x$)

    Team 1:_____   Team 2:_____

11. These are the lower, open gaps in a battlement, allowing defenders to launch arrows or other projectiles from behind cover. They alternate with raised sections called merlons and together form the distinctive notched appearance of castle walls. What are these openings in a battlement called?

    Answer: Crenels

    Team 1:_____   Team 2:_____

12. This geological landscape is formed by the dissolution of soluble rocks such as limestone, dolomite, and gypsum. It is characterized by features like sinkholes, caves, and underground drainage systems. Name this type of topography, often found in regions with abundant rainfall and are crucial for understanding groundwater systems.

    Answer: Karst

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 1
TOSS-UP QUESTIONS

13. This decorative material consists of thin sheets of hammered gold that are applied to surfaces like wood, metal, or stone to create a shimmering, luxurious finish. It has been used in art, architecture, and religious iconography for centuries, particularly in gilding frames, statues, and manuscripts. What is this material called?

    Answer: Gold Leaf

    Team 1:_____   Team 2:_____

14. This 18th-century Scottish philosopher and economist is best known for his work on the principles of free market economics and his concept of the "invisible hand." His most famous work, *The Wealth of Nations*, laid the foundation for modern economic theory. Who is this influential figure in economic thought?

    Answer: Adam Smith

    Team 1:_____   Team 2:_____

15. These elementary particles are the fundamental building blocks of protons and neutrons, which in turn make up the nucleus of an atom. They come in six "flavors" – up, down, charm, strange, top, and bottom – and combine in groups of three to form hadrons. What are these subatomic particles called, essential to the structure of matter?

    Answer: Quarks

    Team 1:_____   Team 2:_____

16. This series of pamphlets was written during the early years of the American Revolutionary War to inspire colonists and soldiers to persevere through difficult times. Beginning with the famous line, "These are the times that try men's souls," it bolstered the morale of those fighting for independence. What is this work by Thomas Paine?

    Answer: *The American Crisis*

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 1
TOSS-UP QUESTIONS

17. **Science Computation:** What is the magnitude of a force acting on an object to maintain equilibrium if one force pushes north at 18 newtons and another force pushes west at 24 newtons?

    Answer: 30

        Team 1:_____   Team 2:_____

18. This mountain range forms a natural border between Spain and France, stretching from the Bay of Biscay to the Mediterranean Sea. Known for its rugged peaks, what is the name of this mountain range that separates the Iberian Peninsula from the rest of Europe?

    Answer: The Pyrenees

        Team 1:_____   Team 2:_____

19. This play centers on the frustrations and disappointments of rural life, focusing on a disillusioned man who feels his life has been wasted serving a self-absorbed professor. Themes of unrequited love, regret, and the search for purpose are explored through the interactions of the characters. What is the title of this 1898 work by Anton Chekhov?

    Answer: *Uncle Vanya*

        Team 1:_____   Team 2:_____

20. **Math Computation:** Convert the decimal 0.6363 repeating into a fraction in lowest terms.

    Answer: 101/159

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 2
LIGHTNING ROUND

Pop Culture: NFL Players

Directions: Given the years, team, jersey number, and position. Name the NFL player.

2001-2019; New England Patriots, #12, Quarterback   Tom <u>Brady</u>

1988-1999; Dallas Cowboys, #88, Wide Receiver   Michael <u>Irvin</u>

1985-2000; San Francisco 49ers, #80, Wide Receiver   Jerry <u>Rice</u>

2001-2009; San Diego Chargers, #21, Running Back   LaDainian <u>Tomlinson</u>

1992-2007; Green Bay Packers, #4, Quarterback   Brett <u>Favre</u>

1998-2011; Indianapolis Colts, #18, Quarterback   Peyton <u>Manning</u>

1990-2002; Dallas Cowboys, #22, Running Back   Emmitt <u>Smith</u>

2007-2016; Minnesota Vikings, #28, Running Back   Adrian <u>Peterson</u>

1979-1992; San Francisco 49ers, #16, Quarterback   Joe <u>Montana</u>

.2011-2020; Houston Texans, #99, Defensive End   <u>J.J. Watt</u>

Extras:

.2006-2020; New Orleans Saints, #9, Quarterback   Drew <u>Brees</u>

.2010-2018; New England Patriots, #87, Tight End   Rob <u>Gronkowski</u>

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 2
LIGHTNING ROUND**

Pop Culture: 2004 Films

Directions: Given the clue, name the film released in 2004

Cady attempts to join an elite clique called the Plastics	*Mean Girls*
An ogre has to save his true love from the fairy godmother	*Shrek 2*
An awkward teenager helps his friend Pedro run for class president	*Napoleon Dynamite*
A taxi driver escorts a contract killer	*Collateral*
A broken up couple attempt to wipe memories of each other	*Eternal Sunshine of the Spotless Mind*
Peter Parker contemplates dropping his superhero identity	*Spider-Man 2*
Frank Castle takes revenge on the people who killed his family	*The Punisher*
8. Xenomorphs and Yautja (yowt·juh) collide in an arctic pyramid	*Alien vs Predator*
A man falls for a woman who forgets their relationship every day.	*50 First Dates*
.Scorsese film about eccentric billionaire Howard Hughes	*The Aviator*

Extras:

.Survivors ward off zombies in a mall	*Dawn of the Dead*
.A teen wizard finds out secrets of his past connected to the killer Sirius Black	*Harry Potter and the Prisoner of Azkaban*

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 2
LIGHTNING ROUND**

Pop Culture: Billboard Top 100 Hits 2004

Directions: Given the song, name the artist. All songs were on the Billboard hot 100 in 2004

This Love	Maroon 5
Numb	Linkin Park
Hey Ya!	Outkast
Milkshake	Kellis
Toxic	Britney Spears
My Band	D12
Jesus Walks	Kanye West
Are You Gonna Be My Girl	Jet
Let's Get It Started	Black Eyed Peas
.*Drop It Like It's Hot*	Snoop Dogg

Extras:

.*The Reason*	Hoobastank
.*Burn*	Usher

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 3
TOSS-UP QUESTIONS

21. This invention revolutionized rapid exchange of information across continents. Its use of Morse code became the standard for telecommunication and was adopted for both commercial and military purposes. Its first message read, "What hath God wrought?" What is this invention, first demonstrated by Samuel Morse?

    Answer: Telegraph

    Team 1:_____   Team 2:_____

22. This structure is a collection of heart muscle fibers responsible for transmitting electrical impulses from the atrioventricular (AV) node to the ventricles, ensuring coordinated contractions of the heart. It plays a crucial role in maintaining the heart's rhythm and effective blood pumping. What is this part of the cardiac conduction system called?

    Answer: Bundle of His (or His Bundle)

    Team 1:_____   Team 2:_____

23. This post-apocalyptic novel follows a father and his young son as they navigate a desolate, ash-covered landscape, struggling to survive while maintaining their humanity. The book explores themes of survival, love, and hope in the face of overwhelming despair. What is the title of this 2006 Pulitzer Prize-winning novel by Cormac McCarthy?

    Answer: *The Road*

    Team 1:_____   Team 2:_____

24. This British author, born in 1797, was the daughter of political philosopher William Godwin and feminist writer Mary Wollstonecraft. Married to the poet Percy Bysshe Shelley, she is widely regarded as a pioneer of the science fiction genre. Who is this famous author of *Frankenstein?*

    Answer: Mary Shelley

    Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 3
TOSS-UP QUESTIONS**

25. **Math Computation:** What is the distance between the points, (2, 7) and (-2, -1)? Leave your answer in reduced radical form.

    Answer: $4\sqrt{5}$

    Team 1:_____   Team 2:_____

26. This type of collision occurs when two objects collide and do not bounce apart but instead lose kinetic energy, often resulting in the objects sticking together or deforming. While momentum is conserved, some of the kinetic energy is transformed into other forms of energy, such as heat or sound. What is this type of collision called?

    Answer: Inelastic collision

    Team 1:_____   Team 2:_____

27. Emerging in the mid-20th century, this movement drew inspiration from popular culture, including advertising, comic books, and mass media. It often used bright colors and bold imagery to blur the boundaries between high art and commercial art. Which art style is exemplified by Andy Warhol's "Campbell's Soup Cans"?

    Answer: Pop Art

    Team 1:_____   Team 2:_____

28. This 18th-century invention revolutionized the textile industry by mechanizing the spinning of cotton fibers into thread, increasing production speed and efficiency. Powered by water, it was a key development in the Industrial Revolution, leading to the establishment of factories. What is this invention created by Richard Arkwright?

    Answer: The Water Frame

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 3
TOSS-UP QUESTIONS

29. **Math Computation:** What is the exact value of the secant of 315 degrees?

    Answer: √2 [radical (square root of) 2]

    Team 1:_____   Team 2:_____

30. This hormone is produced by the thyroid gland and plays a crucial role in regulating calcium levels in the blood. It lowers calcium concentration by inhibiting bone resorption and promoting the deposition of calcium into bones. What is the name of this hormone that helps maintain calcium homeostasis?

    Answer: Calcitonin

    Team 1:_____   Team 2:_____

31. This Canadian comedy troupe formed in 1984, and landed their own HBO sketch comedy series in 1988. In 1996, they made a cult classic film called *Brain Candy* and in 2022, Amazon rebooted their show. Who is this group consisting of Kevin McDonald, Dave Foley, Bruce McCulloch, Mark McKinney, and Scott Thompson?

    Answer: Kids in the Hall

    Team 1:_____   Team 2:_____

32. This invention, developed in the 19th century, revolutionized daily life by providing a practical and long-lasting source of artificial light. It works by passing an electric current through a filament, which then heats up and emits light. What is the name of this device, commonly associated with inventors like Thomas Edison and Joseph Swan?

    Answer: Light bulb

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 3
TOSS-UP QUESTIONS

33. This 1995 JRPG video game was developed by Square for the Super Nintendo before being ported to the Playstation in an upgraded version. What is this game where players control a group of adventurers who travel through time to prevent a global catastrophe?

    Answer: *Chrono Trigger*

         Team 1:_____   **Team 2:_____**

34. This poem, also known as "Stop All the Clocks," expresses deep grief and mourning following the death of a loved one. The speaker calls for the world to come to a halt, reflecting the overwhelming sense of loss. What is the title of this well-known elegy by W.H. Auden?

    Answer: *Funeral Blues*

         Team 1:_____   **Team 2:_____**

35. **Math Computation:** Solve the following equation for M: 1/3M + 10 = 4 [read: one third M plus 10 equals 4].

    Answer: (M=) -18

         Team 1:_____   **Team 2:_____**

36. This play blends elements of tragedy and comedy. It tells the story of King Leontes, who wrongly accuses his wife, Hermione, of infidelity, leading to a series of tragic events. Years later, themes of redemption and reconciliation emerge as Leontes seeks to atone for his mistakes. What is this romance by William Shakespeare?

    Answer: *The Winter's Tale*

         Team 1:_____   **Team 2:_____**

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 3
TOSS-UP QUESTIONS

37. This American politician served as Secretary of the Interior from 1933 to 1946 under President Franklin D. Roosevelt. He played a crucial role in the public works programs, including the implementation of the Public Works Administration (PWA), which helped combat the Great Depression. Who is this New Deal administrator?

    Answer: Harold L. Ickes

    Team 1:_____   Team 2:_____

38. This musical, based on the popular animated film, tells the story of an ogre who embarks on a quest to rescue Princess Fiona. Featuring songs like "Big Bright Beautiful World" and "I'm a Believer," it combines humor, fantasy, and heart. What is this Broadway adaptation that premiered in 2008?

    Answer: *Shrek: The Musical*

    Team 1:_____   Team 2:_____

39. **Math Computation:** What is the phase shift of the following sinusoidal function?

    y = 5sin(x + pi/4) [y equals 5 sine of the quantity x plus pi over 4 end quantity].

    Answer: pi/4 left (or 1/4 pi left) {must say left}

    Team 1:_____   Team 2:_____

40. This is the electrode in an electrochemical cell where reduction occurs, meaning it gains electrons. In a galvanic (or voltaic) cell, it is the positive terminal, while in an electrolytic cell, it is the negative terminal. What is the name of this electrode, commonly paired with an anode?

    Answer: Cathode

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 4
LIGHTNING ROUND

MATH: Solving Simple Inequalities

Directions: Solve the following simple inequalities. State your answer with the x term first.

5x - 7 < 13 (read as: five x minus seven is less than thirteen) $\qquad$ x < 4

3x - 4 < 8 (read as: three x minus four is less than eight) $\qquad$ x < 4

-2x + 11 > 25 (read as: negative two x plus eleven is greater than twenty-five) $\qquad$ x < -7

6x + 2 > 14 (read as: six x plus two is greater than fourteen)

$\qquad$ x > 2

4x + 3 < 27 (read as: four x plus three is less than twenty-seven)

$\qquad$ x < 6

7x - 10 > 11 (read as: seven x minus ten is greater than eleven)

$\qquad$ x > 3

5x + 6 > -29 (read as: five x plus six is greater than negative twenty-nine)

$\qquad$ x > -7

-9 < -31x + 4 (read as: negative nine is less than negative one-third x plus four)

$\qquad$ x < 39

2 > 15 - 41x (read as: two is less than fifteen minus one-fourth x)

$\qquad$ x > 52

.4x - 5 < 11 (read as: four x minus five is less than eleven)

$\qquad$ x < 4

Extras:

.13 < 4x - 43 (read as: thirteen is less than four x minus forty-three)

$\qquad$ x > 14

.3x + 7 > 19 (read as: three x plus seven is greater than nineteen)

$\qquad$ x > 4

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 4
LIGHTNING ROUND**

Science: Elemental Spelling

Directions: Given the list of elements, name the word their chemical symbols spell.

Neon, Platinum, Uranium, Neon   NePtUNe

Molybdenum, Carbon, Potassium, Einsteinium, Yttrium   MoCKEry

Phosphorus, Iodine, Radium, Tellurium   PIRaTe

Krypton, Yttrium, Platinum, Oxygen, Nitrogen   KrYPtON

Hydrogen, Actinium, Potassium, Erbium   HAcKEr

Germanium, Neon, Silicon, Sulfur   GeNeSiS

Iron, Lithium, Neon   FeLiNe

Carbon, Yttrium, Boron, Oxygen, Roentgenium   CYBORg

Carbon, Hydrogen, Oxygen, Cobalt, Lanthanum, Tellurium   CHoCoLaTe

.Barium, Sodium, Sodium   BaNaNa

Extras:

.Americium, Erbium, Iodine, Calcium   AmErICa

.Calcium, Nitrogen, Dysprosium   CaNDy

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1
QUARTER 4
LIGHTNING ROUND**

Social Studies: Second Most Populous Cities in the U.S.

Directions: Given the state, name the second most populous city.

California   San Diego

Texas   San Antonio

Florida   Miami

New York   Hempstead

Illinois   Aurora

Pennsylvania   Pittsburgh

Arizona   Tucson

Ohio   Cleveland

Georgia   Augusta

.North Carolina   Raleigh

Extras:

.Michigan   Grand Rapids

.Washington   Spokane

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 1**

Extra Questions

E1.   These traveling entertainers were common in the Middle Ages, performing music, poetry, and storytelling in courts, markets, and towns. Often accompanied by instruments like the lute or harp, they sang about historical events, heroic deeds, and romance. What were these wandering performers called?

Answer: Minstrels

E2.   This memoir recounts the author's harrowing experiences as a teenager during the Holocaust, including his time in Auschwitz and Buchenwald concentration camps. It explores themes of survival, faith, and the horrors of human cruelty. What is the title of this 1956 work by Elie Wiesel, a key piece of Holocaust literature?

Answer: *Night*

E3.   **Math Computation:** What is the value of the tangent of 270 degrees?

Answer: Undefined

E4.   This economic principle explains how countries or individuals can benefit from specializing in the production of goods or services in which they have a lower opportunity cost, even if they are less efficient in producing other goods. It underpins the idea that trade can be mutually beneficial. What is this concept called?

Answer: Comparative Advantage

E5.   This branch of technology focuses on the generation, manipulation, and detection of light (photons), encompassing areas like lasers, fiber optics, and imaging systems. It plays a crucial role in fields such as telecommunications, medical diagnostics, and quantum computing. What is this science of light called?

Answer: Photonics

E6.   This strip of land was established in 1953 at the end of the Korean War, and is approximately 160 miles long and 2.5 miles wide. What is this fortified strip of land that runs across the Korean Peninsula and serves as a buffer zone between North Korea and South Korea?

Answer: Demilitarized Zone (prompt for more on DMZ)

**OSSAA 2024-2025
REGIONAL GAME 1**

E7.   This allegorical novella represents the events leading up to and following the Russian Revolution of 1917. As a group of farm animals overthrow their human owner and attempt to establish an equal society, the pigs gradually take control, mirroring the rise of authoritarianism. What is the title of this 1945 work by George Orwell?

Answer: *Animal Farm*

E8.   This spicy Korean dish is made from fermented vegetables, primarily napa cabbage and radishes, seasoned with chili pepper, garlic, and ginger. It is a staple in Korean cuisine and is known for its tangy and robust flavor. What is this fermented dish called?

Answer: Kimchi

E9.   This analytical technique is used to determine the structure of organic compounds by analyzing the magnetic properties of atomic nuclei. It provides detailed information about the molecular environment by measuring the interaction between nuclear spins and an applied magnetic field. What is this technique called?

Answer: Nuclear Magnetic Resonance (NMR) spectroscopy

E10.   **Science Computation:** Convert 25 micrometers into meters in scientific notation.

Answer: 2.5×10^{-5} [2.5 times ten to the negative fifth (power)]

OSSAA 2024-2025
REGIONAL GAME 2

QUARTER 1
TOSS-UP QUESTIONS

1. **Science computation:** Find the potential difference when a charged particle moves 0.25 meters in a uniform electric field of strength 1400 newtons per coulomb. Put your answer in volts with the correct number of significant digits.

   Answer: 350

   Team 1:_____   Team 2:_____

2. This Scottish author, born in 1860 was largely inspired by his close relationship with the Llewelyn Davies family,his works explore themes of childhood and fantasy. He wrote novels and plays like *The Little Minister* and *The Admirable Crichton*. Who is this influential figure in children's literature and author of *Peter Pan*?

   Answer: Sir James Barrie

   Team 1:_____   Team 2:_____

3. This social media influencer challenged Mike Tyson to a boxing match in November of 2024. Who is this influencer who has over 20 million YouTube subscribers, and is the brother of Logan, another influencer who fought Floyd Mayweather Jr.?

   Answer: Jake Paul

   Team 1:_____   Team 2:_____

4. **Math Computation:** Add the following radicals and simplify: $\sqrt{12} + \sqrt{75} - 4\sqrt{3}$ [read: radical 12 plus radical 75 minus 4 radical 3].

   Answer: $3\sqrt{3}$ [read: 3 radical 3 or 3 times the square root of 3]

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 1
TOSS-UP QUESTIONS

5. Developed in the late Renaissance, this style is characterized by elongated proportions, exaggerated poses, and a lack of clear perspective. It often conveys a sense of elegance and artificiality. Which style is exemplified by the works of artists like Parmigianino, especially in "Madonna with the Long Neck"?

   Answer: Mannerism

   Team 1:_____   Team 2:_____

6. This novel, the first part of *The Once and Future King* series, retells the childhood of King Arthur, focusing on his education by the wizard Merlyn. The story explores themes of leadership, morality, and the magical adventures that shape Arthur into the future king of England. What is the title of this 1938 work by T.H. White?

   Answer: *The Sword in the Stone*

   Team 1:_____   Team 2:_____

7. This legislative tactic is used to delay or block the passage of a bill by extending debate, often through prolonged speeches or procedural motions. It is most commonly associated with the U.S. Senate, where it can be used to prevent a vote unless a supermajority is reached. What is this parliamentary procedure called?

   Answer: Filibuster

   Team 1:_____   Team 2:_____

8. This Scottish poet is often regarded as the national poet of Scotland and is known for his contributions to both Scots and English literature. His works frequently explore themes of love, nature, and Scottish identity. Who is this literary figure, famous for poems such as *Auld Lang Syne* and *Tam o' Shanter*?

   Answer: Robert "Bobby" <u>Burns</u>

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 1
TOSS-UP QUESTIONS

9. When an organism has two identical alleles at a specific gene locus, it is said to be in this genetic condition. This condition can lead to the expression of recessive traits if both alleles are recessive, or dominant traits if both alleles are dominant. What is this condition called when an organism has two identical alleles for a particular gene?

    Answer: Homozygous

         Team 1:_____   Team 2:_____

10. These archaeological sites are locations where ancient humans hunted or scavenged mammoths. Often found in regions like North America and Siberia, they reveal evidence of large-scale hunting practices during the Pleistocene epoch. What are these important prehistoric sites called?

    Answer: Mammoth Kill Sites (or Mammoth Butchering Sites)

         Team 1:_____   Team 2:_____

11. This urban fantasy novel follows Richard Mayhew, a Londoner who stumbles into a hidden, magical realm beneath the city after helping an injured woman. In this parallel world, he encounters strange characters and dangerous challenges while trying to return to his normal life. What is the title of this 1996 novel by Neil Gaiman?

    Answer: *Neverwhere*

         Team 1:_____   Team 2:_____

12. **Math Computation:** Convert into a binary number, the base ten number 38.

    Answer: 100110 [read: one zero zero one one zero]

         Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 1
TOSS-UP QUESTIONS

13. This hockey player is widely considered the greatest of all time, holding the record for the most career points with 2,857. He led the Edmonton Oilers to four Stanley Cup championships and played for the L.A. Kings, St. Louis Blues, and New York Rangers. Known as "The Great One," who is this player who retired with 61 NHL records?

    Answer: Wayne <u>Gretsky</u>

        Team 1:_____   Team 2:_____

14. This movement began as a German art school in 1919, founded by Walter Gropius, and emphasized the unity of art, craft, and technology. It aimed to integrate functional design with artistic principles and influenced architecture, furniture, and graphic design. Which style is seen in the works of designers like Marcel Breuer and Paul Klee?

    Answer: Bauhaus

        Team 1:_____   Team 2:_____

15. These extinct marine arthropods were among the earliest known forms of complex life, thriving for over 270 million years during the Paleozoic era. Characterized by their segmented bodies and hard exoskeletons, they are commonly found as fossils and provide insights into early marine ecosystems. Name these prehistoric creatures.

    Answer: Trilobite

        Team 1:_____   Team 2:_____

16. This American psychologist is known for his theory of moral development, which outlines stages through which individuals progress in understanding morality. Who is this psychologist whose model expands on Piaget's work and categorizes moral reasoning into pre-conventional, conventional, and post-conventional levels?

    Answer: Lawrence <u>Kohlberg</u>

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 1
TOSS-UP QUESTIONS

17. This sedimentary cryptocrystalline form of the mineral quartz, commonly found in Pleistocene deposits in Oklahoma, was crucial for the survival of early human inhabitants during this epoch. What is this mineral that was used for creating sharp tools and weapons, such as spear points and scrapers, and were found along riverbanks?

    Answer: Flint

      Team 1:_____   **Team 2:_____**

18. This 1962 Cold War confrontation between the United States and the Soviet Union occurred after the discovery of Soviet nuclear missiles in Cuba. It brought the world to the brink of nuclear war before both nations reached an agreement to remove the missiles. What is the name of this tense 13-day standoff?

    Answer: Cuban Missile Crisis (accept also October crisis or Caribbean crisis)

      Team 1:_____   **Team 2:_____**

19. **Math Computation:** Add the following radicals and simplify: $23\sqrt{3} - 19\sqrt{2} + 33\sqrt{2} - 42\sqrt{3}$ [23 radical 3 minus 19 radical 2 plus 33 radical 2 minus 42 radical 3].

    Answer: $-19\sqrt{3} + 14\sqrt{2}$ [negative 19 radical 3 plus 14 radical 2 ; may use square root instead of radical] (or $14\sqrt{2} - 19\sqrt{3}$)

      Team 1:_____   **Team 2:_____**

20. This term refers to the ability of a buffer solution to resist changes in pH when small amounts of acid or base are added. It depends on the concentration of the acid-base pair within the solution and determines how effectively the buffer can maintain a stable pH. What is this property of a buffer called?

    Answer: Buffer capacity

      Team 1:_____   **Team 2:_____**

**OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 2
LIGHTNING ROUND**

Literature: British Authors and Their Works

Directions: Given the title of a work by a British author, name the author.

The Lady of Shalott   Alfred L. <u>Tennyson</u>

A Journal of the Plague Year   Daniel <u>Defoe</u>

Bells and Pomegranates   <u>Robert Browning</u>

Goodbye to All That   Robert <u>Graves</u>

How the Leopard Got His Spots   Rudyard <u>Kipling</u>

Murder in the Cathedral   T.S. <u>Eliot</u>

On a Piece of Chalk   <u>Thomas Huxley</u>

Othello   William <u>Shakespeare</u>

Pride and Prejudice   Jane <u>Austen</u>

Songs of Innocence   William <u>Blake</u>

Extras:

The Fundamental Orders of Connecticut   Thomas <u>Hooker</u>

The Wife of Bath's Tale   Geoffrey <u>Chaucer</u>

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2
QUARTER 2
LIGHTNING ROUND

Fine Arts: Mythological Greek to Roman Names

Directions: Identify the Roman equivalent of the following Greek gods.

Zeus	Jupiter
Hera	Juno
Poseidon	Neptune
Ares	Mars
Aphrodite	Venus
Hermes	Mercury
Athena	Minerva
Hephaestus	Vulcan
Artemis	Diana
.Hades	Pluto

Extras:

.Dionysus	Bacchus
.Demeter	Ceres

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2

QUARTER 2
LIGHTNING ROUND

Social Studies: U.S. Lakes and Rivers

Directions: Given a clue, name the lake or river in the U.S.

Largest lake in Oklahoma   Lake <u>Eufaula</u>

Longest river in the United States   <u>Missouri</u> River

Lake in Mississippi that is home to the Hugh White State Park   <u>Grenada</u> Lake

Largest freshwater lake by area   Lake <u>Superior</u>

Smallest of the great lakes   Lake <u>Erie</u>

River that formed the Grand Canyon and is home to the Hoover Dam   <u>Colorado</u> River

Second longest river in the United States   <u>Mississippi</u> River

River that is home to George Washington's plantation   <u>Potomac</u> River

River that George Washington crossed on Christmas of 1776   <u>Delaware</u> River

.A lake in Oregon formed by a collapsed volcano   <u>Crater</u> Lake

Extras:

.When combined with Lake Michigan, it is the largest freshwater lake in the   Lake <u>Huron</u>
world

.Largest tributary of the Columbia River   <u>Snake</u> River

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2

QUARTER 3
TOSS-UP QUESTIONS

21. This post-production process involves adjusting the color of a film or photo to achieve a specific mood or aesthetic. It can be used to correct color imbalances and create a consistent color palette throughout a project. Which term describes the technique used in films like "The Matrix" to create its distinctive green tint?

    Answer: Color Grading

        Team 1:_____   Team 2:_____

22. **Science computation:** What is the spring constant of a spring that when compressed a distance of 3.0 meters produces elastic potential energy of 675 Joules? Recall the formula: $PE = 1/2\ k\ x^2$ [P E equals one half k x squared] and express your answer in Joules per meter squared.

    Answer: 150

        Team 1:_____   Team 2:_____

23. This writer and director is well known for his stylish action scenes and comedic dialogue. Who is this director of films like *Kingsman: The Secret Service*, *X-Men: First Class*, and *Argylle*?

    Answer: Matthew Vaughn

        Team 1:_____   Team 2:_____

24. This stage of the plant life cycle follows fertilization and the formation of a diploid zygote. The zygote undergoes mitotic divisions to form an embryonic plant within the seed, which remains dormant until germination. What is this phase that represents the initial development of a new plant and eventually becomes a mature sporophyte?

    Answer: Embryogenesis

        Team 1:_____   Team 2:_____

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REGIONAL GAME 2

QUARTER 3
TOSS-UP QUESTIONS

25. This economic term refers to a situation in which a country imports more goods and services than it exports, leading to a negative balance in its international trade. It can affect a nation's currency value and economic growth. Name this condition, often discussed in global trade economics.

    Answer: Trade Deficit

    Team 1:_____   Team 2:_____

26. This American playwright is known for his powerful dramas that explore themes of human fragility, desire, and conflict, often set in the American South. His most famous works include *A Streetcar Named Desire* and *The Glass Menagerie*. Who is this 20th-century playwright?

    Answer: Tennessee Williams

    Team 1:_____   Team 2:_____

27. An iconic figure in the world of Impressionism, this artist is best known for his series of paintings depicting water lilies, haystacks, and the Rouen Cathedral under different light conditions. Name this artist whose famous works include "Impression, Sunrise."

    Answer: Claude <u>Monet</u>

    Team 1:_____   Team 2:_____

28. This Greek dish features seasoned meat, typically lamb or chicken, cooked on a vertical rotisserie and thinly sliced. What is this dish that is usually served in a pita with tomatoes, onions, and a yogurt-based sauce called tzatziki?

    Answer: Gyro

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 2

QUARTER 3
TOSS-UP QUESTIONS

29. **Science Computation:** What is the molar mass of zinc if 4.000 moles of zinc has a mass of 261.52 grams? Express your answer in grams per mole.

    Answer: 65.38

    Team 1:_____   Team 2:_____

30. This university, founded in 1897, is located in Oklahoma and named after a prominent African-American educator and political leader. It is the only historically Black college or university (HBCU) in the state. Name this university which is a member-school of the Thurgood Marshall College Fund?

    Answer: Langston University

    Team 1:_____   Team 2:_____

31. This short story follows the adventures of a brave mongoose who protects a British family living in India from dangerous cobras. The tale highlights themes of loyalty, courage, and the natural order. What is the title of this story, featured in Rudyard Kipling's *The Jungle Book*?

    Answer: *Rikki-Tikki-Tavi*

    Team 1:_____   Team 2:_____

32. This part of the nervous system consists of all the nerves and ganglia outside the brain and spinal cord. It is responsible for transmitting signals between the central nervous system and the rest of the body, controlling both voluntary actions and involuntary functions like heart rate and digestion. What is this system called?

    Answer: Peripheral nervous system (prompt on PNS)

    Team 1:_____   Team 2:_____

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REGIONAL GAME 2

QUARTER 3
TOSS-UP QUESTIONS

33. This novel is a Sherlock Holmes pastiche, written by Anthony Horowitz, in which the famous detective and his companion Dr. Watson investigate a sinister conspiracy. Set in the late 19th century, it pays homage to Sir Arthur Conan Doyle's original stories. What is the title of this 2011 tribute to the Sherlock Holmes canon?

    Answer: *The House of Silk*

       Team 1:_____   Team 2:_____

34. Mendel observed that in some crosses, one trait would appear in every individual of the first filial generation, masking the other trait. However, the masked trait would reappear in the second filial generation. What term describes the trait that reappears in the second generation after being hidden in the first?

    Answer: <u>Recessive</u> trait

       Team 1:_____   Team 2:_____

35. This term is used in economics to describe the value of products and services generated by both domestic and international activities. Name this measurement, which serves as a key indicator of a nation's economic well-being and is broader than Gross Domestic Product.

    Answer: Gross National Product (GNP)

       Team 1:_____   Team 2:_____

36. Math Computation: Expand (x + y)^4 [read: the quantity x plus y end quantity to the fourth power]. You may use Pascal's triangle to expand this expression.

    Answer: $x^4 + 4x^3 y + 6x^2 y^2 + 4x y^3 + y^4$

       Team 1:_____   Team 2:_____

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REGIONAL GAME 2

QUARTER 3
TOSS-UP QUESTIONS

37. This large muscle originates from the posterior ilium and sacrum and inserts into the iliotibial tract and femur. It is responsible for powerful hip extension and is used for activities like climbing stairs, sprinting, and standing up. What is this major gluteal muscle, the largest and most superficial of its group?

    Answer: Gluteus maximus

    Team 1:_____   Team 2:_____

38. This young adult series follows a teenage spy who is recruited by MI6 after the death of his uncle, a secret agent. Name this series, written by Anthony Horowitz, in which the titular character uses his intelligence and special gadgets to thwart criminal organizations.

    Answer: *Alex Rider*

          Team 1:_____   Team 2:_____

39. This practice involves secretly gathering confidential information, typically for a government or organization, to gain a strategic advantage. It often includes surveillance, infiltration, and the use of covert agents. What is this 9-letter term, commonly associated with spying?

    Answer: Espionage

          Team 1:_____   Team 2:_____

40. **Science computation:** What is the total current, in amps, flowing through a parallel circuit of 3 lights if the amperes through the lights are 5 amps, 6 amps, and 9 amps?

    Answer: 20

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REGIONAL GAME 2
Team 1:_____   Team 2:_____

QUARTER 4
LIGHTNING ROUND

MATH: Probability with Dice

Directions: Given two fair standard dice, find the probability of each of the following rolls occurring. Make sure to reduce if possible.

Both end up with twos	1/36
The sum is 9	1/9
The sum is 8	5/36
The product of the numbers is 6	1/9
The difference between the two is 2	1/9
One is 3 more than the other	1/18
The sum is a prime number	5/12
At least one of the dice is a 1	11/36
Only one of the dice is a 4	5/18
.The sum is 7	1/6

Extras:

.The sum is even	1/2
.The sum is 4	1/12

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REGIONAL GAME 2

Team 1:_____   Team 2:_____

QUARTER 4
LIGHTNING ROUND

Fine Arts: Fauvist Artists and Their Works

Directions: Given the work, name the fauvist artist

Woman with a Hat   Henri <u>Matisse</u>

Charing Cross Bridge   André <u>Derain</u>

The River Seine at Chatou   Maurice de <u>Vlaminck</u>

The Corn Poppy   Kees van <u>Dongen</u>

The Portuguese   Georges <u>Braque</u>

Le Golfe   Henri <u>Manguin</u>

Unloading Sand   Albert <u>Marquet</u>

Boats at Martigues   Raoul <u>Dufy</u>

I and the Village   Marc <u>Chagall</u>

.The Old King   Georges <u>Rouault</u>

Extras:

.Artist in Her Studio   Charles <u>Camoin</u>

.Antheor Bay   Louis <u>Valtat</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 2

QUARTER 4
LIGHTNING ROUND

SCIENCE: People - Scientists and Discoveries

Directions: Identify the scientist credited with each of the following discoveries.

Radioactivity	Henri <u>Becquerel</u>
Antibiotics	Alexander <u>Fleming</u>
Cells	Robert <u>Hooke</u>
Theory of Evolution by Natural Selection	Charles <u>Darwin</u>
Circulation of the blood	William <u>Harvey</u>
Theory of Relativity	Albert <u>Einstein</u>
Plate Tectonics	Alfred <u>Wegener</u>
Vulcanization of Rubber	Charles <u>Goodyear</u>
Law of Electrolysis	Michael <u>Faraday</u>
.Speed of Light	Olaus <u>Roemer</u>

Extras:

.Stethoscope	Rene <u>Laennec</u>
.Electric Induction	Michael <u>Faraday</u>

Team 1:_____   Team 2:_____

Total 1:_____   Total 2:_____

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REGIONAL GAME 2

Extra Questions

E1.   Science computation: The half-life of iodine-131 is approximately 8 days. If a sample originally contains 200 grams of iodine-131, how many grams will remain after 32 days?

Answer: 12.5

E2.   This natural phenomenon occurs when volcanic ash, debris, and water mix, creating a fast-moving flow of mud and rock that can devastate communities downstream from a volcano. Triggered by volcanic eruptions, heavy rainfall, or melting ice, these flows can travel at high speeds and cover large distances. What is this volcanic hazard called?

Answer: Lahar

E3.   This novel, written in a style blending fiction and journalism, chronicles the drug-fueled journey of Raoul Duke and his attorney, Dr. Gonzo, as they navigate the excesses and surreal experiences of 1970s Las Vegas. It explores themes of the American Dream, counterculture, and self-destruction. What is the title of this 1971 work by Hunter S. Thompson?

Answer: *Fear and Loathing in Las Vegas*

E4.   This deity, often associated with marriage and childbirth, was known for her vengeful nature, especially toward her husband's lovers and their offspring. As one of the twelve Olympian gods, she played a significant role in various myths, particularly those involving family loyalty and divine justice. Who is this queen of the gods in Greek mythology?

Answer: Hera

E5.   This novel introduces the world to British secret agent James Bond as he embarks on a mission to bankrupt a Soviet financier through high-stakes gambling. Featuring intrigue, danger, and espionage, it sets the tone for many future adventures in the series. What is the title of this first novel in Ian Fleming's James Bond series?

Answer: *Casino Royale*

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E6.   This 1925 legal case challenged a Tennessee law that prohibited the teaching of evolution in public schools. A high school teacher was accused of violating the law, leading to a national debate over science, religion, and education. Name this trial, which featured prominent figures like Clarence Darrow and William Jennings Bryan.

Answer: <u>Scopes</u> Trial (Accept: Scopes Monkey Trial or The State of Tennessee v. John Thomas Scopes)

E7.   This 1983 cult classic film features original songs by John Cafferty and the Beaver Brown Band, including "On The Dark Side". What is this film, directed by Martin Davidson, about a band whose lead singer mysteriously disappeared in the '60s, leading to a search for his missing final album in the '80s?

Answer: *Eddie and the Cruisers*

E8.   **Math Computation:** If f(x) = 4x + 2 [read: F of x equals 4x plus 2] and g(x) = |8 - 2x| [read: G of x equals the absolute value of the quantity 8 minus 2x end quantity], what is f(g(7)) [read: F of G of 7]?

Answer: 26

E9.   This United States base is located in Oklahoma City and was originally known as the Midwest Air Depot. What is this base named in honor of the first Native American major general and is the headquarters of the Air Force Materiel Command's Oklahoma City Air Logistics Center?

Answer: <u>Tinker</u> Air Force Base

E10.   This nuclear process occurs when a neutron in an unstable nucleus is transformed into a proton, releasing an electron and an antineutrino. The electron, known as a beta particle, is emitted from the nucleus, and the atomic number of the atom increases by one. What is this type of radioactive decay called?

Answer: <u>Beta-minus</u> decay

OSSAA 2024-2025
REGIONAL GAME 3
QUARTER 1
TOSS-UP QUESTIONS

1. This fantasy novel follows young Lyra Belacqua as she embarks on a journey to the Arctic to rescue kidnapped children and uncover a sinister plot involving a mysterious substance called Dust. What is the title of this 1995 novel by Philip Pullman, the first in *His Dark Materials* trilogy?

   Answer: *Northern Lights* (or *The Golden Compass*)

   Team 1:_____   Team 2:_____

2. During the 18th century, this British explorer embarked on three voyages to the Pacific Ocean, during which he charted many islands. He is known for his encounters with indigenous peoples, including the inhabitants of Tahiti. Who was this explorer, who was killed in Hawaii in 1779?

   Answer: Captain James <u>Cook</u>

   Team 1:_____   Team 2:_____

3. **Math Computation:** How many distinct diagonals are there in a convex dodecagon?

   Answer: 54

   Team 1:_____   Team 2:_____

4. The structural integrity and compaction of DNA within the nucleus are maintained by a special type of protein that DNA wraps around, forming a complex that constitutes the first level of chromosomal organization. This protein plays a fundamental role in the packing of DNA into structures that form the basis of chromatin. Name this protein.

   Answer: Histone

   Team 1:_____   Team 2:_____

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REGIONAL GAME 3
QUARTER 1
TOSS-UP QUESTIONS

5. This type of artifact, commonly found in Pleistocene deposits across Oklahoma, provides evidence of early human activity in the region. What are these artifacts that were made from stone, are often sharp, and were used for cutting, scraping, and hunting, being among the earliest indications of human presence in North America?

    Answer: Clovis Points

        Team 1:_____   Team 2:_____

6. This Hindu deity, depicted with an elephant head, is worshiped as the remover of obstacles and the god of beginnings and wisdom. He is the son of Shiva and Parvati. Who is this beloved god, often invoked at the start of new ventures?

    Answer: Ganesha

        Team 1:_____   Team 2:_____

7. **Math Computation:** Find the first derivative of the function: $f(x) = 4x^{-3} - 8x^{-5}$ [F of x equals 4 x to the negative third minus 8 x to the negative fifth]. Leave your answer with negative powers.

    Answer: $-12x^{-4} + 40 x^{-6}$ [negative 12 x to the negative fourth plus 40 x to the negative sixth]

        Team 1:_____   Team 2:_____

8. This individual holds the distinction of being the first African American elected to public office in Oklahoma Territory. Who is this politician who was elected to the Oklahoma Territorial Legislature in 1890, and was the author of the first civil rights legislation in the Oklahoma Territory?

    Answer: Green Currin

        Team 1:_____   Team 2:_____

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REGIONAL GAME 3
QUARTER 1
TOSS-UP QUESTIONS

9. This phenomenon is observed in various natural and technological processes and is utilized in freeze-drying where moisture is removed from frozen foods by changing the ice directly into vapor. In this process, a solid material transforms directly into a gas, bypassing the liquid state entirely. What term describes this phase transition?

    Answer: Sublimation

      Team 1:_____   Team 2:_____

10. **Math Computation:** Divide the following binomials by rationalizing the denominator: (6 - 2√5)/(3 + √5) [read: the quantity 6 minus 2 radical 5 over the quantity 3 plus radical 5]. Express your answer as two terms.

    Answer: (7 - 3√5) [read: 7 minus 3 radical (square root) 5] (or - 3√5 + 7)

      Team 1:_____   Team 2:_____

11. This British actor is known for his transformative performances and method acting, and is the only male actor to have won three Best Actor Oscars. Who is this actor that starred in films like *There Will Be Blood*, *Lincoln*, and *The Last of the Mohicans*?

    Answer: Daniel Day Lewis

      Team 1:_____   Team 2:_____

12. This verb tense refers to actions that will be completed before a certain future time or event. What is this verb tense that is formed using "will have" followed by the past participle of the verb?

    Answer: Future Perfect

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 3
QUARTER 1
TOSS-UP QUESTIONS

13. This architectural feature consists of a series of windows located high on a wall, typically near or just below the roofline, designed to bring light into large interior spaces. It is commonly found in churches, basilicas, and cathedrals, where it allows natural light to illuminate the central nave. What is this elevated windowed section called?

    Answer: Clerestory

        Team 1:_____   Team 2:_____

14. This fictional character, a former military police officer, becomes embroiled in a deadly conspiracy while visiting a small town in Georgia. Known for his sharp investigative mind, physical strength, and nomadic lifestyle, he is introduced in the novel *Killing Floor*. Who is this character created by Lee Child?

    Answer: Jack Reacher

        Team 1:_____   Team 2:_____

15. This term describes a type of plant that sheds its leaves seasonally, typically in response to changes in temperature or moisture levels. Such plants are common in temperate forests, where the shedding of leaves during autumn is a notable feature. What is this term that contrasts with evergreen plants?

    Answer: Deciduous

        Team 1:_____   Team 2:_____

16. **Math Computation:** What is the mode of the following set of quiz scores: 13, 15, 16, 16, 19, 21, and 21?

    Answer: 16, 21

        Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 3
QUARTER 1
TOSS-UP QUESTIONS**

17. This ancient wonder, created by the sculptor Phidias around 435 BCE, depicted the king of the gods seated on a grand throne and was housed in a temple. Made of ivory and gold, it stood over 40 feet tall and was located in a sanctuary that hosted the ancient Olympic Games. What is this lost wonder of the ancient world located in Olympia?

    Answer: Statue of Zeus (at Olympia**)**

      Team 1:_____   Team 2:_____

18. This tragedy centers on a prince who encounters the ghost of his father. The prince struggles with indecision after learning his uncle murdered his father to seize the throne. Memorable lines from this play include "To be, or not to be" and "The play's the thing." Name this Shakespearean tragedy about the Prince of Denmark.

    Answer: *Hamlet*

      Team 1:_____   Team 2:_____

19. This term refers to unsorted glacial sediment that is deposited directly by a glacier. It consists of a mix of particle sizes, including clay, sand, gravel, and boulders. These sediments are not layered and are often left behind when a glacier retreats. Name this geological material commonly associated with glaciation.

    Answer: Till

      Team 1:_____   Team 2:_____

20. This popular sitcom, created by Garry Marshall, Dale McRaven, and Joe Glauberg, ran for four seasons on ABC from 1978 to 1982. What is this sitcom, a spinoff of *Happy Days*, that stars Robin Williams as an alien who befriends a human played by Pam Dawber?

    Answer: *Mork and Mindy*

      Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 3
QUARTER 2
LIGHTNING ROUND

Social Studies: State Flowers

Directions: Given the state flower, name the U.S. state.

Bluebonnet	Texas
Orange Blossom	Florida
Saguaro Cactus Blossom	Arizona
Mountain Laurel	Connecticut
Magnolia	Mississippi
Hibiscus	Hawaii
Forget-Me-Not	Alaska
Rose	New York
Peach Blossom	Delaware
. Indian Paintbrush	Wyoming

Extras:

. Violet	Illinois
. Sunflower	Kansas

Team 1:_____   Team 2:_____

Fine Arts: Operas and Composers

Directions: Given the opera, name the composer.

The Magic Flute	Wolfgang Amadeus <u>Mozart</u>
La Bohème	Giacomo <u>Puccini</u>
Carmen	Georges <u>Bizet</u>
Rigoletto	Giuseppe <u>Verdi</u>
The Flying Dutchman	Richard <u>Wagner</u>
The Barber of Seville	Gioachino <u>Rossini</u>
Dido and Aeneas	Henry <u>Purcell</u>
Peter Grimes	Benjamin <u>Britten</u>
The Rake's Progress	Igor <u>Stravinsky</u>
.*Bluebeard's Castle*	Béla <u>Bartók</u>

Extras:

.*Der Rosenkavalier*	Richard <u>Strauss</u>
.*L'elisir d'amore*	Gaetano <u>Donizetti</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 3

QUARTER 2
LIGHTNING ROUND

Fine Arts: Art Movements

Directions: Given an artwork and its artist, name the art movement

Picasso, *Guernica*	Cubism
Monet, *Water Lilies*	Impressionism
Dali, *The Persistence of Memory*	Surrealism
Andy Warhol, *Campbell's Soup Can*	Pop Art
Edvard Munch, *The Scream*	Expressionism
Seurat, *Sunday Afternoon on the Island of La Grande Jatte*	Pointillism
Van Gogh, *The Starry Night*	Post-Impressionism
Jackson Pollock, *Lavender Mist*	Abstract Expressionism
Leonardo da Vinci, *Mona Lisa*	Renaissance
.Delacroix, *Liberty Leading the People*	Romanticism

Extras:

.Jacques-Louis David, *The Death of Socrates*	Neoclassicism
.Raphael, *The School of Athens*	High Renaissance

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 3

QUARTER 3
TOSS-UP QUESTIONS

21. This novel explores individualism and the defiance of societal conventions through the character of Howard Roark, an uncompromising architect. Roark faces opposition from those who promote traditional architectural styles, including a powerful critic named Ellsworth Toohey. Name this novel written by Ayn Rand.

    Answer: *The Fountainhead*

        Team 1:_____   Team 2:_____

22. **Math Computation:** Find sin(60)sin(30) [read: sine 60 degrees times sine 30 degrees] by using the product to sum formula for sine, sinAsinB =1/2[cos (A – B) - cos (A + B)] [sine A times sine B equals one half the quantity cosine of A minus B subtract cosine A plus B end quantity]. Express your answer with radicals and as one fraction.

    Answer: ($\sqrt{3}/4$) [read: radical 3 over 4]

        Team 1:_____   Team 2:_____

23. This structure, part of the respiratory system, is reinforced with C-shaped cartilaginous rings to prevent collapse during breathing. It connects the larynx to the bronchi and allows air to pass to and from the lungs. Commonly known as the windpipe, name this tubular structure found in the throat.

    Answer: Trachea

        Team 1:_____   Team 2:_____

24. This hotel, known for its luxury and opulence, opened in 1906 and is renowned for its neoclassical design and service. Located on Piccadilly in London, it has hosted many notable guests, including royalty and celebrities. It is famous for its afternoon tea and dining experiences. Name this iconic hotel founded by a Swiss hotelier.

    Answer: The Ritz (London)

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 3

QUARTER 3
TOSS-UP QUESTIONS

25. This novel follows the rise and fall of a Southern politician named Willie Stark, whose journey from idealism to corruption mirrors real-life figures like Huey Long. The narrator, Jack Burden, reflects on Stark's manipulation of power and the consequences of his actions. Name this Pulitzer Prize-winning novel written by Robert Penn Warren.

    Answer: *All the King's Men*

        Team 1:_____   Team 2:_____

26. This founding father co-designed the Great Seal of the United States and added its Latin mottos Annuit cœptis (coep·tis) and Novus ordo seclorum. Who is this man who served as the secretary of the Continental Congress and whose name was on the first printing of the Declaration of Independence?

    Answer: Charles <u>Thomson</u>

        Team 1:_____   Team 2:_____

27. **Math Computation:** Add the following 2 matrices: Matrix A: 5 and 8 top row left to right, and -3 and 7 bottom row left to right. Matrix B: 2 and -6 top row left to right and 4 and 9 bottom row left to right.

    Answer: 7 and 2 top row left to right, 1 and 16 bottom row left to right

        Team 1:_____   Team 2:_____

28. This city was the site of a crucial Civil War battle and siege in 1863. It gave the Union control of the Mississippi River, effectively splitting the Confederacy in two. This victory, along with the fall of Port Hudson, was pivotal for the Union's success. Name this city in Mississippi, which was secured by Ulysses S. Grant's forces.

    Answer: Vicksburg

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 3

QUARTER 3
TOSS-UP QUESTIONS

29. This 1982 Disney film was given a sequel in 2010, an animated series, and an upcoming third film. What is this sci-fi film, directed by Steven Lisberger, that was known for its use of computer generated effects, and stars Jeff Bridges who travels into the digital world to fight for freedom for the oppressed programs?

    Answer: *Tron*

    Team 1:_____   Team 2:_____

30. This type of pollination occurs when pollen is transferred from the anther of one flower to the stigma of another flower on a different plant of the same species. It promotes genetic diversity among plant populations, often requiring biotic agents such as insects, birds, or wind. What is this pollination process?

    Answer: <u>Cross</u>-pollination

    Team 1:_____   Team 2:_____

31. This is an economic system in which goods and services are exchanged directly for other goods and services without using money. What is this system, one of the oldest forms of commerce which relies on the mutual needs of trading partners?

    Answer: <u>Barter</u> System

    Team 1:_____   Team 2:_____

32. This term describes the technique of creating a three-dimensional effect by gradually transitioning from light to dark tones in a painting or drawing. What is this technique that adds depth and realism to the artwork and is used in paintings by Leonardo da Vinci and Caravaggio?

    Answer: Chiaroscuro

    Team 1:_____   Team 2:_____

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REGIONAL GAME 3

QUARTER 3
TOSS-UP QUESTIONS

33. **Science computation:** What is the total potential difference, in volts, flowing through a series circuit of 3 resistors if the voltages through the resistors are 4.5, 6.3, and 8.8?

    Answer: 19.6

        Team 1:_____   Team 2:_____

34. Born in New York City in 1916, this American playwright is known for his works that often delve into the complexities of family dynamics and personal identity. He won the Nobel Prize in Literature in 1936. His notable plays include "Long Day's Journey into Night," "The Iceman Cometh," and "Mourning Becomes Electra." Identify this playwright.

    Answer: Eugene O'Neill

        Team 1:_____   Team 2:_____

35. These muscles are located between the ribs and play a key role in the mechanics of breathing. They assist in expanding and contracting the chest cavity during inhalation and exhalation. Divided into internal and external layers, they work together to facilitate lung ventilation. Name these muscles found between the ribs.

    Answer: Intercostal Muscles

        Team 1:_____   Team 2:_____

36. This dish, a staple in Peruvian cuisine, consists of raw fish marinated in citrus juices, often with added ingredients like onions, cilantro, and chili peppers. The acid from the citrus "cooks" the fish, resulting in a flavorful and refreshing dish. What is this popular method of seafood preparation known as?

    Answer: Ceviche

        Team 1:_____   Team 2:_____

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REGIONAL GAME 3

QUARTER 3
TOSS-UP QUESTIONS

37. This verb tense describes actions that are happening right now or at the moment of speaking. It is formed with the present tense of "to be" and the present participle (-ing form) of the main verb.

    Answer: Present Continuous

    Team 1:_____   Team 2:_____

38. This musical adaptation tells the story of Jean Valjean, a former prisoner who seeks redemption, set against revolutionary France. Premiering on Broadway in 1987, it is one of the longest-running musicals in history. Name this musical whose songs include: "I Dreamed a Dream" and "Do You Hear the People Sing?"

    Answer: *Les Misérables*

    Team 1:_____   Team 2:_____

39. **Math Computation:** What percent of 500 is 80?

    Answer: 16

    Team 1:_____   Team 2:_____

40. This concept in evolutionary biology describes how certain traits that evolved due to their utility for one particular function may later come to serve a completely different function. What is this concept called, which explains how features can gain new evolutionary roles over time?

    Answer: Exaptation (Co-option)

    Team 1:_____   Team 2:_____

Math: Systems of Equations

Directions: Solve the system of equations or identify the concept described.

x + y = 10, x - y = 2	x = 6, y = 4
2x + y = 8, x - y = 1	x = 3, y = 2
3x - 2y = 5, x + 2y = 9	x = 7/2, y = 11/4
x - 2y = 1, 3x + y = 9	x = 19/7, y = 6/7
4x + 3y = 24, 2x - y = 4	x = 18/5, y = 16/5
x = 2y + 1, 3x - y = 7	x = 13/5, y = 4/5
2x + 3y = 12, 3x - 2y = 1	x = 27/13, y = 34/13
y = x + 3, 2x + y = 11	x = 8/3, y = 17/3
3x + 2y = 11, 2x - 3y = -4	x = 25/13, y = 34/13
.2x + 3y = 14, 4x - y = 10	x = 22/7, y = 18/7

Extras:

. x + y = 8, 2x - y = 6	x = 14/3, y = 10/3
.x - y = 3, 2x + 3y = 12	x = 21/5, y = 6/5

Team 1:_____   Team 2:_____

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REGIONAL GAME 3

QUARTER 4
LIGHTNING ROUND

Science: Ecology

Directions: Identify the ecological term based on the following statements.

The variety of different species and ecosystems within a given area.   Biodiversity

A community of organisms interacting with their physical environment.   Ecosystem

Hierarchical levels in an ecosystem,

                                                                                                    <u>Trophic</u> Levels

Total mass of living organisms in a given area or ecosystem.

                                                                                                    Biomass

Role or function of an organism or species within an ecosystem.

                                                                                                    Niche

The natural environment where a species lives and grows.

                                                                                                    Habitat

A group of individuals of the same species living in a specific area.

                                                                                                    Population

Different populations of species living together in the same habitat.

                                                                                                    Community

Process of change in the species structure of an ecological community
over time.   Succession

.The movement of chemical elements between living organisms and the
environment   Biogeochemical Cycles

Extras:

.A species that has a disproportionately large effect on its environment,   Keystone species
relative to its abundance.

.Maximum population size of a species that an environment can sustain   Carrying Capacity
indefinitely.

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REGIONAL GAME 3
Team 1:_____   Team 2:_____

QUARTER 4
LIGHTNING ROUND

Social Studies: World History Terms/People Beginning with "S"

Directions: Identify the historical term or person beginning with the letter "S".

Scottish economist known for writing *The Wealth of Nations*.	Adam <u>Smith</u>
Egyptian president who was assassinated in 1981.	Anwar <u>Sadat</u>
American woman who organized the Seneca Falls Convention in 1848.	Elizabeth <u>Stanton</u>
The day of rest and worship observed in Judaism and Christianity.	Sabbath
A Christian ceremony, such as baptism or communion.	Sacrament
A major dynasty of Persia, known for establishing Twelver Shi'ism.	Safavid
The largest hot desert in the world, located in North Africa.	Sahara
A gathering place in 18th-century France where intellectuals convened	Salon
A member of the Japanese warrior class, known for their code of honor.	
. A Nicaraguan group that overthrew the Somoza dictatorship in 1979.	Samurai

Extras: Sandinista

. Working-class group from the French Revolution with distinctive clothing.

. The title for the ruler of the Inca Empire.   Sans-culottes

                                                                Sapa Inca

Team 1:_____   Team 2:_____

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REGIONAL GAME 3

Extra Questions

E1.   This poet, known for his confessional style, wrote about personal struggles and historical events, often blending the two in his work. His collections include *Life Studies* and the influential poem, *For the Union Dead*, which reflects on a Civil War monument in Boston. Name this Pulitzer Prize-winning American poet.

Answer: Robert <u>Lowell</u>

E2.   These lenses are commonly used in optical devices such as cameras, microscopes, and eyeglasses for farsightedness. What is the name given to this specific type of lens that is thicker at the center than at the edges and converges light rays that pass through it?

Answer: <u>Convex</u> lens

E3.   **Math Computation:** What is the area, in square feet, of a sector of a circle with a central angle of 45 degrees, if the radius of the circle is 10 feet? Put your answer in terms of pi.

Answer: 12.5 pi

E4.   This popular Canadian comedian and actor left Hollywood in 1997 to focus on his family, and has not returned to live-action film since. Who is this actor who was in hits like *Ghostbusters*, *Honey I Shrunk the Kids*, and *Little Shop of Horrors*?

Answer: Rick <u>Moranis</u>

E5.   This ancient structure, built during the Fourth Dynasty, served as a tomb for the Pharaoh Khufu. It is the largest of the three pyramids on the Giza Plateau and was the tallest man-made structure in the world for over 3,800 years. Name this Wonder of the Ancient World, located near modern-day Cairo, Egypt.

Answer: The Great Pyramid of Giza

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E6.	This hormone, produced by the adrenal glands, is released in response to stress and low blood glucose levels. Often referred to as the "stress hormone," name this hormone involved in the body's fight-or-flight response.

Answer: Cortisol

E7.	This author is known for writing psychological thrillers and horror novels, many of which have been adapted into films. His works often explore themes of control, manipulation, and dystopian societies. Some of his most famous novels include *Rosemary's Baby* and *The Stepford Wives*. Name this American novelist and playwright.

Answer: Ira <u>Levin</u>

E8.	This playwright is known for his exploration of dysfunctional relationships and social critique in works that often blend realism with absurdism. One of his most famous plays centers on a bitterly contentious couple, George and Martha, and their young guests, Nick and Honey. Name this American playwright of *Who's Afraid of Virginia Woolf?*.

Answer: Edward <u>Albee</u>

E9.	This Byzantine emperor ruled from 527 to 565 AD and is known for his ambitious efforts to reconquer lost Western Roman territories, his extensive building projects, including the Hagia Sophia, and his codification of Roman law. His reign marked a period of military, legal, and cultural achievements. Name this emperor of the Byzantine Empire.

Answer: Justinian I

E10.	**Math Computation:** What is the degree of the following polynomial: 4x squared y cubed plus 8x to the fourth y squared minus 7x squared y to the third?

Answer: 6

Total 1:_____   Total 2:_____

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REGIONAL GAME 3

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REGIONAL GAME 4
QUARTER 1
TOSS-UP QUESTIONS

1. This religion's sacred text is the Tripitaka, also known as the Pali Canon. It emphasizes the Four Noble Truths and the Eightfold Path as central to ending suffering. What is this religion founded by Siddhartha Gautama?

   Answer: Buddhism (or Buddha Dharma)

        Team 1:_____   Team 2:_____

2. This American politician protected the interests of white Southerners and influenced the South's secession from the Union. Name this man who served as vice president of the United States from 1825 to 1832 under both John Quincy Adams and Andrew Jackson, and was the first of two vice presidents to resign.

   Answer: John C. Calhoun

        Team 1:_____   Team 2:_____

3. **Math Computation:** Maycie works at the pet store and gets an employee discount of 15%. What will be the price, including tax, on an aquarium that usually costs $200, if the tax at this location is 10%?

   Answer: 187

        Team 1:_____   Team 2:_____

4. In 1682, this French explorer claimed all the land along the Mississippi River and its tributaries for France, which included parts of what is now Oklahoma. Who is this explorer whose exploration established the basis for French claims in the central United States and led to further exploration and trade in the region, especially in furs?

   Answer: René-Robert Cavelier, Sieur de La Salle

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 1
TOSS-UP QUESTIONS

5. This scientific field studies the atmosphere and its processes, focusing on weather patterns, climate, and atmospheric phenomena such as storms, precipitation, and temperature changes. It plays a critical role in forecasting weather and understanding long-term climate trends. What is the name of this branch of atmospheric science?

   Answer: Meteorology

       Team 1:_____   Team 2:_____

6. This pitcher holds the MLB record for the most career strikeouts with 5,714 and the most no-hitters thrown with seven. Known for his fastball, he played for the New York Mets, California Angels, Houston Astros, and Texas Rangers during his 27-year career. Who is this Hall of Famer, who was also the CEO of the Texas Rangers?

   Answer: Nolan <u>Ryan</u>

       Team 1:_____   Team 2:_____

7. This process, developed by a French scientist in the 19th century, involves heating liquids like milk and juice to a specific temperature to kill harmful bacteria and pathogens without altering the flavor or nutritional content. It is widely used in the food and beverage industry to increase shelf life and safety. What is this method called?

   Answer: Pasteurization

       Team 1:_____   Team 2:_____

8. This part of speech modifies a verb, an adjective, or another adverb, often ending in -ly. What is this term that answers questions such as "how," "when," "where," and "to what extent"?

   Answer: Adverb

       Team 1:_____   Team 2:_____

9. This phase of bacterial growth occurs after the lag phase and is characterized by a rapid increase in population size, as cells divide at a constant and maximum rate. During this time resources are abundant. Name this phase of microbial growth.

   Answer: <u>Log</u> Phase or <u>Exponential</u> Growth Phase

   Team 1:_____   Team 2:_____

10. This river flows from the Tibetan Plateau to the East China Sea, passing through major cities such as Chongqing, Wuhan, and Shanghai. What is this river that is the longest in China and the third longest in the world, and is also home to the Three Gorges Dam, the world's largest hydroelectric power station?

    Answer: The <u>Yangtze</u> River

    Team 1:_____   Team 2:_____

11. **Math Computation:** Simplify i^{37} [read: i to the 37th power].

    Answer: i

    Team 1:_____   Team 2:_____

12. This Pulitzer Prize-winning play follows two young brothers who are sent to live with their strict, emotionally distant grandmother and quirky aunt during World War II. Through a blend of humor and drama, it explores themes of family, survival, and resilience. What is the title of this 1991 play by Neil Simon?

    Answer: *Lost in Yonkers*

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 1
TOSS-UP QUESTIONS

13. This painter is a key figure in the Surrealist movement, known for his dream-like and fantastical imagery. Who is this artist whose most famous work, The Persistence of Memory, features melting clocks in a desert landscape?

    Answer: Salvador <u>Dalí</u>

    Team 1:_____   Team 2:_____

14. This stringed instrument, popular during the Renaissance and Baroque periods, features a deep, rounded body and a fretted neck, with strings that are plucked to produce sound. Its name is derived from the Arabic word "al-'ūd," meaning "the wood." What is this instrument, often associated with early European music?

    Answer: Lute

    Team 1:_____   Team 2:_____

15. **Math Computation:** Find all solutions of the quadratic equation: $x^2 = 80 + 2x$.

    Answer: (x=) 10, -8 [must have both]

    Team 1:_____   Team 2:_____

16. This dormant, tough, and non-reproductive structure is formed by certain bacteria as a survival mechanism under harsh environmental conditions, such as extreme heat, radiation, or lack of nutrients. It allows the bacteria to persist until conditions become favorable for growth again. What is this highly resistant bacterial structure called?

    Answer: Endospore

    Team 1:_____   Team 2:_____

17. **Math Computation:** What is the sample variance in a normally distributed range of data, if the sample standard deviation is 25?

    Answer: 625

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4

QUARTER 1
TOSS-UP QUESTIONS

18. This graphic novel depicts the experiences of a Holocaust survivor, as recounted by his son, using anthropomorphized characters—Jews are portrayed as mice and Nazis as cats. It intertwines the father's survival of Auschwitz with the son's efforts to understand their relationship. What is the title of this Pulitzer Prize-winning work by Art Spiegelman?

    Answer: *Maus*

       Team 1:_____   Team 2:_____

19. Unique to animal cells, this structure is a type of organelle composed of a series of small tubules that form a complex near the nucleus. It organizes microtubules and provides structural support to the cytoskeleton. What is this cell structure known for its involvement in the organization of the mitotic spindle?

    Answer: Centrosome

       Team 1:_____   Team 2:_____

20. This type of sentence contains one independent clause and at least one dependent clause, such as "When it rains, we stay indoors." What is this type of sentence called?

    Answer: <u>Complex</u> Sentence

       Team 1:_____   Team 2:_____

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REGIONAL GAME 4

QUARTER 2
LIGHTNING ROUND

Social Studies: Economics C-Terms

Directions: Given a brief description, identify the following economic terms beginning with "C."

Measures average price changes for goods and services.	Consumer Price Index
Wealth in the form of money or assets used to make more wealth.	Capital
Negotiations between workers and employers for better terms.	Collective bargaining
Secret cooperation to manipulate prices or markets.	Collusion
A basic good that can be traded or exchanged.	Commodity
A corporation that owns companies in unrelated industries.	Conglomerate
The shrinking phase of the business cycle.	Contraction
Legal protection for creators of original works.	Copyright
A company recognized as a separate legal entity.	Corporation
. Weighs costs and benefits of a decision.	Cost/benefit analysis

Extras:

. When government borrowing reduces private investment.	Crowding-out effect
. Unemployment that rises during economic downturns.	Cyclical Unemployment

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 2
LIGHTNING ROUND**

Social Studies: Famous Landmarks and Continents

Directions: Given the landmark, name the continent it is on.

Mount Kilimanjaro	Africa
Uluru (Ayers Rock)	Australia
Angel Falls	South America
The Moai Statues	South America
Mount Elbrus	Europe
Mount Erebus	Antarctica
Lake Baikal	Asia
Torres del Paine National Park	South America
St. Basil's Cathedral	Europe
.The Banaue Rice Terraces	Asia

Extras:

.The Rock of Gibraltar	Europe
.Sigiriya (Lion's Rock)	Asia

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 2
LIGHTNING ROUND

Science: Space Exploration

Directions: Given a brief description, identify the space mission, person, or object.

First human-made object to reach space in 1957?   Sputnik 1

First human mission to land on the Moon in 1969?   Apollo 11

First person to walk on the Moon?   Neil <u>Armstrong</u>

NASA's long-lasting Mars rover that landed in 2012?   Curiosity

First space station built by humans?   Mir

Telescope launched in 1990 that provided deep space images?   <u>Hubble</u> Space Telescope

First private company to successfully send astronauts to the   SpaceX
International Space Station?

Planet is known as the "Red Planet"?   Mars

The Boundary at which the atmosphere ends and space begins.   Kármán Line

. Region of space where the gravitational pull is so strong that not even   Black hole
light can escape?

Extras:

. What is the name of the spacecraft that explored Pluto and the Kuiper   New Horizons
Belt in 2015?

. What is the name of the first reusable spacecraft built by NASA?   Space Shuttle

Team 1:_____   Team 2:_____

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REGIONAL GAME 4
QUARTER 3
TOSS-UP QUESTIONS

21. This short story, set in a small mining town, humorously recounts a bet involving a frog trained to jump high and a conman who cheats to win. Through its lively characters and witty narrative, it reflects the early style of its author. What is the title of this 1865 tale by Mark Twain?

    Answer: *The Celebrated Jumping Frog of Calaveras County (or Jim Smiley and his jumping frog,* or *The Notorious jumping frog of Calaveras County)*

    Team 1:_____   Team 2:_____

22. This process occurs when the pH of a substance, such as soil, water, or the ocean, decreases, making it more acidic. It can be driven by factors like increased carbon dioxide absorption in oceans or acid rain, leading to effects on ecosystems, aquatic life, and agriculture. What is this process called, often linked to environmental degradation?

    Answer: Acidification

    Team 1:_____   Team 2:_____

23. This constitutional amendment was intended to ensure the security of a free state by allowing for the maintenance of a well-regulated militia. It has been the subject of extensive debate and litigation regarding the extent of its protections. Which Bill of Rights amendment protects individuals' rights to keep and bear arms?

    Answer: Second Amendment

    Team 1:_____   Team 2:_____

24. This Disney live action franchise originally started with a trilogy of films in the 90s starring Emilio Esteves as a lawyer turned kids hockey coach after getting in trouble with the law. In 2021, there was a Disney Plus reboot series. What is this franchise named after the fictional hockey team focused on in the series?

    Answer: *The Mighty Ducks*

    Team 1:_____   Team 2:_____

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REGIONAL GAME 4

QUARTER 3
TOSS-UP QUESTIONS

25. **Math Computation:** What is the reduced rate of change between the coordinates (10, 45) [read: 10 comma 45] and (7, 6) [read: 7 comma 6]?

    Answer: 13

        Team 1:_____   **Team 2:_____**

26. This painting technique, developed in the Renaissance and famously used by Leonardo da Vinci, involves the subtle blending of colors to create a soft, gradual transition between light and shadow. What is this technique that eliminates harsh lines, giving the artwork a smoky, hazy appearance and enhances realism?

    Answer: Sfumato

        Team 1:_____   **Team 2:_____**

27. This novel follows the life of Frankie Machine, a World War II veteran and heroin addict, as he struggles to overcome his addiction while navigating Chicago's grim underworld. The story explores themes of despair, addiction, and redemption, offering a stark portrayal of post-war American life. What is this 1949 novel by Nelson Algren?

    Answer: *The Man with the Golden Arm*

        Team 1:_____   **Team 2:_____**

28. This basketball team, considered the greatest assembly of talent in sports history, won the gold medal at the 1992 Barcelona Olympics. What is this team that had a roster including NBA legends like Michael Jordan, Magic Johnson, and Larry Bird?

    Answer: Dream Team (or the 1992 United States men's Olympic basketball team)

        Team 1:_____   **Team 2:_____**

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QUARTER 3
TOSS-UP QUESTIONS

29. This espionage novel follows the intense Cold War struggle between the United States and the Soviet Union, focusing on a strategic missile defense system and the efforts to prevent its secrets from falling into enemy hands. CIA analyst Jack Ryan must uncover a Soviet double agent. What is the title of this 1988 novel by Tom Clancy?

    Answer: *The Cardinal of the Kremlin*

      Team 1:_____   **Team 2:_____**

30. This court case came to a decision by the U.S. Supreme Court in 1947 who ruled that the segregation of Mexican-American children in California schools was unconstitutional and illegal. What is this case that set an important legal precedent for challenging racial segregation in schools?

    Answer: Mendez v. Westminster

      Team 1:_____   **Team 2:_____**

31. This play centers on the Wingfield family, particularly the fragile Laura, who retreats into a world of delicate sculptures, and her domineering mother, Amanda. Set in St. Louis during the Great Depression, the story reflects themes of memory, escape, and unfulfilled dreams. What is the title of this 1944 play by Tennessee Williams?

    Answer: *The Glass Menagerie*

      Team 1:_____   **Team 2:_____**

32. These small blood vessels branch off from arteries and lead to capillaries. They play a crucial role in regulating blood flow and pressure by constricting or dilating, controlling how much blood reaches various tissues and organs. What are these vessels, essential for microcirculation, called?

    Answer: Arterioles

      Team 1:_____   **Team 2:_____**

**OSSAA 2024-2025
REGIONAL GAME 4**

**QUARTER 3
TOSS-UP QUESTIONS**

33. This former Chief Judge of the U.S. Court of Appeals for the D.C. Circuit was nominated to the Supreme Court by President Obama in 2016, though he was not confirmed. Who is this politician who now leads the Department of Justice?

    Answer: Merrick <u>Garland</u>

         Team 1:_____   Team 2:_____

34. **Math Computation:** Find the limit as x approaches 4 of the function: $f(x) = (x^2 + 5) / (2x - 1)$ [read: F of x equals the quantity x squared plus 5 end quantity over the quantity 2x minus 1 end quantity].

    Answer: 3

         Team 1:_____   Team 2:_____

35. This term refers to the minimum speed an object must reach to break free from the gravitational pull of a planet or other celestial body without further propulsion. It depends on the mass and radius of the body being escaped from. What is this term, often used in space exploration, called?

    Answer: Escape Velocity

         Team 1:_____   Team 2:_____

36. **Math Computation:** Divide the following monomials and simplify your answer: $48x^6 y^3 z^2 / 6x^2 y^2 z$ [48 x to the sixth y to the third z squared over 6x squared y squared z]

    Answer: $8x^4 y z$ [8 x to the fourth (power) y z] |

         Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4

QUARTER 3
TOSS-UP QUESTIONS

37. This event is historically known as the Southampton Insurrection and was a rebellion of enslaved Virginians that took place in Southampton County, Virginia, in August 1831. What is this rebellion where slaves killed an estimated 55 white people, making it the deadliest slave revolt in U.S. history?

    Answer: Nat Turner's Rebellion

    Team 1:_____   **Team 2:**_____

38. This Swiss psychologist is known for his theory of cognitive development, which outlines how children's thinking evolves through distinct stages: sensorimotor, preoperational, concrete operational, and formal operational. Name this psychologist whose work laid the foundation for understanding how children learn and interact with the world.

    Answer: Jean Piaget

    Team 1:_____   **Team 2:**_____

39. This United States Army officer fought during the Mexican–American War. Who is this man who resigned his commission to serve as a Confederate lieutenant-general during the American Civil War, led the Army of Mississippi and was the commanding officer during the Siege of Vicksburg?

    Answer: John C. Pemberton

    Team 1:_____   **Team 2:**_____

40. **Math Computation:** Matthew works at the shoe store and gets an employee discount of 35%. What will be the cost, before tax, of tennis shoes that normally cost $90?

    Answer: $58.50

    Team 1:_____   **Team 2:**_____

OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 4
LIGHTNING ROUND
Math: Equations

Directions: Identify the name of the given equation.

y=mx+b (read as: y equals m x plus b)   Slope-Intercept Form

$a^2+b^2=c^2$ (read as: a squared plus b squared equals c squared)   Pythagorean Theorem

$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$ (read as: x equals negative b plus or minus the square root   Quadratic Formula
of b squared minus 4 a c over 2 a)

$A=\pi r^2$ (read as: A equals pi r squared)   Area of a Circle

$V=4/3\pi r^3$ (read as: V equals four-thirds pi r cubed)   Volume of a Sphere

$\sin^2\theta+\cos^2\theta=1$ (read as: sine squared theta plus cosine squared theta   Pythagorean Identity
equals one)

S=2lw+2lh+2wh (read as: S equals two L times W plus two L times H   Surface Area of a
plus two W times H)   Rectangular Prism

$V=1/3\pi r^2 h$ (read as: V equals one-third pi r squared times h)   Volume of a Cone

$\tan\theta=\sin\theta/\cos\theta$ (read as: tangent theta equals sine theta over cosine   Tangent Identity
theta)

. V=lwh (read as: V equals L times W times H)   Volume of a Rectangular
                                                                        Prism

Extras:

. A=1/2h(b1+b2) (read as: A equals one-half h times open parenthesis b   Area of a Trapezoid
one plus b two close parenthesis)

. $m=\frac{y2-y1}{x2-x1}$ (read as: x equals y two minus y one over x two minus x one)   Slope Formula

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4
QUARTER 4
LIGHTNING ROUND
Fine Arts: Paintings from the Art Institute of Chicago

Directions: Given the painting, name the artist.

American Gothic   Grant <u>Wood</u>

Nighthawks   Edward <u>Hopper</u>

A Sunday on La Grande Jatte   Georges <u>Seurat</u>

The Bedroom   Vincent <u>van Gogh</u>

Water Lilies   Claude <u>Monet</u>

The Old Guitarist   Pablo <u>Picasso</u>

Paris Street; Rainy Day   Gustave <u>Caillebotte</u>

The Child's Bath   Mary <u>Cassatt</u>

At the Moulin Rouge   Henri de <u>Toulouse-Lautrec</u>

Stacks of Wheat (End of Summer)   Claude <u>Monet</u>

Extras:

Time Transfixed   René <u>Magritte</u>

The Song of the Lark   Jules <u>Breton</u>

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4

QUARTER 4
LIGHTNING ROUND

Science: Chemical Reactions

Directions: Identify the type of reaction described.

Two or more substances combine to form a single product.   Synthesis (or Combination)

One compound breaks down into two or more substances.   Decomposition

One element replaces another in a compound.   Single replacement (or displacement)

Two compounds exchange ions to form new compounds.

When a substance reacts with oxygen and releases energy.   Double replacement (or metathesis or exchange)

Reaction that absorbs energy from the surroundings.   Combustion

Reaction that releases energy to the surroundings.   Endothermic

Involves the transfer of electrons between substances.   Exothermic

Occurs when acids and bases react to form water and salt.   Redox

.Reaction produces a precipitate, water, or gas.   Neutralization

Extras: Precipitation

.Occurs in the breakdown of hydrogen peroxide into water and oxygen?

                          Decomposition

.Used in photosynthesis to produce glucose from carbon dioxide and water?

                          Synthesis (or Combination)

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 4

Extra Questions

E1.   This poem uses the image of a sea creature that builds a spiraling, ever-expanding shell to explore themes of growth, change, and spiritual development. The speaker reflects on how each stage of life builds upon the last, urging the soul to constantly strive for higher understanding. What is the title of this poem by Oliver Wendell Holmes?

Answer: *The Chambered Nautilus*

E2.   This popular TV character was created in 1997 for an anime based on a popular video game franchise. He has remained the face of the numerous series made since then, although he has never appeared in the mainline games. Who is this Pokemon trainer who is best friends with a Pikachu?

Answer: Ash Ketchum

E3.   This period in United States history followed the American Civil War, and was dominated by the legal, social, and political challenges of abolishing slavery. What is this period where three amendments were added to the United States Constitution to grant equal civil rights to the newly freed slaves?

Answer: Reconstruction Period

E4.   This short story is based on the author's real-life experience of surviving a shipwreck. It follows four men— a captain, an oiler, a cook, and a correspondent— as they struggle against nature's indifference while adrift in a small boat. What is the title of this 1897 work by Stephen Crane that explores themes of survival and human insignificance?

Answer: *The Open Boat*

E5.   This rate reduces the purchasing power of money, meaning people can buy less with the same amount of money over time. Often reflected by indicators like the Consumer Price Index (CPI), it signals economic health and guides monetary policy decisions. Name this rate at which the level of prices is rising.

Answer: Inflation Rate

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REGIONAL GAME 4

E6.   **Math Computation:** What is the greatest common factor of: $18x^3y^2z$
and $27x^4z^2$ [read: 18 x cubed y squared z and 27 x to the fourth z squared]?
Answer: $9x^3z$ [read: 9 x cubed z]

E7.   This process occurs during prophase I of meiosis, when homologous
chromosomes exchange reciprocal segments of genetic material. It increases genetic
variation by producing new combinations of alleles, which are then passed onto
offspring. What is this key mechanism in sexual reproduction called?

Answer: Crossing Over

E8.   **Math Computation:** What is the geometric mean between the numbers
169 and 64?

Answer: 104

E9.   This musical centers on a group of dancers auditioning for a spot in a
Broadway show, revealing their personal stories and struggles through song and
dance. Premiering on Broadway in 1975, it won nine Tony Awards, including
Best Musical. Songs include "One" and "What I Did for Love." What is this
musical?

Answer: *A Chorus Line*

E10.   This Swedish inventor, engineer, and chemist is best known for inventing
dynamite. Concerned about the destructive uses of his invention, he established the
prestigious international awards that bear his name, recognizing achievements in fields
such as peace, literature, and science. Who is this figure, who founded the Nobel
Prizes?

Answer: Alfred Nobel

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REGIONAL GAME 4

OSSAA 2024-2025
REGIONAL GAME 5
QUARTER 1
TOSS-UP QUESTIONS

1. This groundbreaking antibiotic, discovered in 1928, inhibits the synthesis of bacterial cell walls, making it effective against a wide range of bacterial infections. Derived from a specific mold, it was the first to be mass-produced and became a vital tool in modern medicine. What is the name of this antibiotic, discovered by Alexander Fleming?

   Answer: Penicillin

      Team 1:_____   Team 2:_____

2. This play follows the story of a talented poet and swordsman who is self-conscious about his large nose. Though he secretly loves his cousin Roxane, he helps another man woo her by providing eloquent love letters, hiding his own feelings. Written in 1897, what is the title of this work by Edmond Rostand?

   Answer: *Cyrano de Bergerac*

      Team 1:_____   Team 2:_____

3. This Middle Eastern spice blend is made from a combination of dried herbs like thyme, oregano, and marjoram, mixed with sesame seeds, sumac, and salt. What is this spice blend that is often used to season breads, meats, and vegetables, and can be mixed with olive oil to create a flavorful dip?

   Answer: Za'atar

      Team 1:_____   Team 2:_____

4. These high-altitude clouds, found above 20,000 feet, are thin, wispy, and composed of ice crystals. They often indicate fair weather but can also signal a change in weather patterns when they thicken and increase in coverage. What are these delicate, feather-like clouds called?

   Answer: Cirrus clouds

      Team 1:_____   Team 2:_____

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REGIONAL GAME 5
QUARTER 1
TOSS-UP QUESTIONS

5. This legal concept, protected by the Fifth Amendment in the U.S. Constitution, safeguards against repeated prosecution for the same offense, ensuring fairness in the legal system. What is this principle called that protects an individual from being tried twice for the same crime once acquitted or convicted?

   Answer: Double Jeopardy

   Team 1:_____   **Team 2:_____**

6. This 12th-century German abbess, composer, and mystic is known for her contributions to theology, music, and natural science. She composed many liturgical songs and wrote visionary texts. Who is this influential medieval figure, recognized for her extensive contributions to early Christian mysticism and music?

   Answer: Hildegard of Bingen

   Team 1:_____   **Team 2:_____**

7. Identify the term for a letter or group of letters added to the beginning of a word to alter its meaning. What is this term called that is seen in un- in the word unhappy?

   Answer: Prefix

   Team 1:_____   **Team 2:_____**

8. A type of stop motion animation, this technique specifically uses malleable clay figures which are sculpted and re-sculpted between frames to create animated sequences. Each frame is photographed to give the illusion of movement when played back in rapid succession. Which technique is used in the making of "Chicken Run" and "Coraline"?

   Answer: Claymation

   Team 1:_____   **Team 2:_____**

OSSAA 2024-2025
REGIONAL GAME 5
QUARTER 1
TOSS-UP QUESTIONS

9. This novel chronicles the rise and fall of a Southern politician, loosely based on real-life figure Huey Long, as seen through the eyes of Jack Burden, his idealistic aide. It explores themes of power, corruption, and morality in politics. What is the title of this 1946 Pulitzer Prize-winning novel by Robert Penn Warren?

    Answer: *All the King's Men*

    Team 1:_____   **Team 2:_____**

10. This 1882 U.S. federal law was the first significant legal restriction on immigration, specifically targeting laborers from a particular country. It prohibited the immigration of Chinese workers and barred those already in the country from becoming citizens. What is the name of this act?

    Answer: <u>Chinese</u> <u>Exclusion</u> Act

    Team 1:_____   **Team 2:_____**

11. **Math Computation:** Jimmy leaves for school at 7:30 am and returns home at 3:12 pm. How many minutes elapse from the time he leaves until he gets back?

    Answer: 462

    Team 1:_____   **Team 2:_____**

12. This concept in zoology and ecology refers to the role or function of an organism or species within an ecosystem. It involves how an organism fits into an environment, including what it eats, where it lives, and how it interacts with other species. What is this term that describes the ecological position of a species?

    Answer: (Ecological) Niche

    Team 1:_____   **Team 2:_____**

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REGIONAL GAME 5
QUARTER 1
TOSS-UP QUESTIONS

13. This novel follows a young man named Tristan Thorn who ventures into a magical realm to retrieve a fallen star for his beloved. However, he discovers that the star is a living woman and becomes embroiled in a series of adventures involving witches, magical creatures, and rival princes. What is the title of this 1999 fantasy novel by Neil Gaiman?

    Answer: *Stardust*

        Team 1:_____   Team 2:_____

14. This ancient Greek city, located on the coast of modern-day Turkey, was renowned for its temple dedicated to Artemis, one of the Seven Wonders of the Ancient World. It was also an important center for early Christianity, visited by figures like Saint Paul. What is the name of this historically significant city?

    Answer: Ephesus

        Team 1:_____   Team 2:_____

15. **Math Computation:** What is the reduced slope between the two points, (3, -4) [read: 3 comma negative 4] and (-2,8) [read: negative 2 comma 8]?

    Answer: -12/5 (or -2&2/5)

        Team 1:_____   Team 2:_____

16. This type of microscope allows for the magnification of organisms or cells to a level where structures as small as 200 nanometers can be seen. It has enhanced the ability to study microbial structures in detail. Name this instrument that uses electrons as a source of illumination providing more detailed images than a standard light microscope.

    Answer: Electron Microscope (accept scanning electron microscope or transmission electron microscope)

        Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 1
TOSS-UP QUESTIONS

17.   Becoming a social media sensation in 2024, what is the name of the pygmy hippo that was born at the Khao Kheow Open Zoo in Thailand?

Answer: Moo Deng

    Team 1:_____   Team 2:_____

18. This 17th-century allegory, written during the author's imprisonment, follows the journey of a man named Christian as he travels from his home in the "City of Destruction" to the "Celestial City," overcoming various trials and temptations along the way. What is the title of this work by John Bunyan?

Answer: *Pilgrim's Progress*

    Team 1:_____   Team 2:_____

19. This concept describes the phenomenon where a solute disrupts a solvent's structure and decreases its tendency to form a solid, an effect that is shown by the use of salt to melt ice on roads. By adding a solute, the temperature at which it will freeze is lowered. What is the term for this colligative property?

Answer: Freezing Point Depression (or cryoscopic depression)

    Team 1:_____   Team 2:_____

20. **Math Computation:** Convert an angle of 5pi/4 (read as five pi over four) radians into an equivalent angle in degrees.

Answer: 225 degrees

    Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 2
LIGHTNING ROUND
Pop Culture: Celebrity Deaths 2024

Directions: Given a brief description, identify the celebrity who passed away in 2024.

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American jazz saxophonist known for his smooth sound and influence on contemporary jazz.

David <u>Sanborn</u>

Actor known for his role as Apollo Creed in the "Rocky" series and Dillon in "Predator."

Carl <u>Weathers</u>

Legendary football coach known for his success in college basketball, particularly at Maryland.

Lefty <u>Driesell</u>

Actor, known for his role as Hutch in "Starsky & Hutch."

David <u>Soul</u>

Country music singer and songwriter, known for hits like "Courtesy of the Red, White and Blue."

Toby <u>Keith</u>

Football Legend known for his career in the Oakland Raiders.

Jim <u>Otto</u>

Canadian short story writer and Nobel laureate, known for her works "The Moons of Jupiter" and "Dear Life."

Alice <u>Munro</u>

Actor and filmmaker known for his documentary "Super Size Me," which critiques fast food culture.

Morgan <u>Spurlock</u>

Prolific session guitarist known for hits like "Rebel Rouser," who helped define the sound of instrumental rock.

Duane <u>Eddy</u>

.British actor known for "Game of Thrones" and "Torchwood."

Ian <u>Gelder</u>

Extras:

.Legendary German footballer who captained West Germany to victory in the 1974 World Cup.

Franz <u>Beckenbauer</u>

.American comedian and actor known for his role on the sitcom "Curb Your Enthusiasm."

Richard <u>Lewis</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 5
QUARTER 2
LIGHTNING ROUND
Pop Culture: 1974 Movies

Directions: Given a brief description, name the 1974 movie.

A horror film about a group terrorized by cannibals in Texas. *The Texas Chain Saw Massacre*

A comedy spoof of horror classics, starring Gene Wilder. *Young Frankenstein*

A private investigator uncovers a conspiracy in 1930s L.A. *Chinatown*

A dystopian sci-fi film starring Sean Connery and a giant floating head. *Zardoz*

James Bond faces an assassin with a deadly golden pistol. *The Man with the Golden Gun*

A widow starts a new life with her son in this Martin Scorsese drama. *Alice Doesn't Live Here Anymore*

A surveillance expert is caught in a mystery he's recording. *The Conversation*

A vigilante seeks revenge after his family is attacked. *Death Wish*

A wealthy man's tragic pursuit of love in this Fitzgerald adaptation. *The Great Gatsby*

.A high-rise catches fire in this disaster film.

Extras: *The Towering Inferno*

.A former football player leads convicts in a game against prison guards.

The Longest Yard

.A crime saga following Michael Corleone and his father's rise to power.

The Godfather Part II

Team 1:_____   Team 2:_____

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REGIONAL GAME 5
QUARTER 2
LIGHTNING ROUND

Pop Culture: 2024 MLB American League Managers

Directions: Given the team, name the American league manager

Texas Rangers   Bruce <u>Bochy</u>

New York Yankees   Aaron <u>Boone</u>

Kansas City Royals   Matt <u>Quatraro</u>

Los Angeles Angels   Ron <u>Washington</u>

Chicago White Sox   Grady <u>Sizemore</u>

Baltimore Orioles   Brandon <u>Hyde</u>

Cleveland Guardians   Stephen <u>Vogt</u>

Minnesota Twins   Rocco <u>Baldelli</u>

Oakland Athletics   Mark <u>Kotsay</u>

. Toronto Blue Jays   John <u>Schneider</u>

Extras:

. Tampa Bay Rays   Kevin <u>Cash</u>

. Houston Astros   Joe <u>Espada</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 3
TOSS-UP QUESTIONS

21. This type of change is the transformation of substances into different substances with new molecular identities. An example is the reaction between vinegar and baking soda to produce carbon dioxide. What term describes the formation of new substances with different properties from the originals?

    Answer: Chemical change (or Chemical reaction)

    Team 1:_____   Team 2:_____

22. **Math Computation:** What are the next three terms in the following sequence: 2, 5, 10, 17, 26, …?

    Answer: 37, 50, 65

    Team 1:_____   Team 2:_____

23. This art form involves the design and execution of stylized lettering, often using specialized tools such as pens or brushes. It is highly regarded for its aesthetic qualities and its historical significance in the creation of manuscripts, religious texts, and decorative inscriptions. What is this art of handwriting called?

    Answer: Calligraphy

    Team 1:_____   Team 2:_____

24. This American poet is renowned for his collection of epitaphs delivered by the deceased residents of a fictional Midwestern town, revealing the hidden struggles and secrets of their lives. Written in free verse, the work reflects on themes of death, lost dreams, and small-town existence. Who is this poet, author of *Spoon River Anthology*?

    Answer: Edgar Lee <u>Masters</u>

    Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 3
TOSS-UP QUESTIONS

25. This 1984 film has become a cult classic and had a remake in 2011 with Julianne Hough. What is this film, directed by Herbert Ross, that stars Kevin Bacon as a teen who moves to a town that has outlawed dancing?

    Answer: *Footloose*

        Team 1:_____   Team 2:_____

26. **Math Computation:** What is the second derivative, with respect to x, of the equation: y = 5x^5 - 4x^3 + 3x^2 + 9x - 12 [y equals 5 x to the fifth minus 4 x cubed plus 3 x squared plus 9x minus 12]?

    Answer: 100x^3 - 24x + 6 [100 x cubed (to the third) minus 24x plus 6]

        Team 1:_____   Team 2:_____

27. This political stance advocates for a country to avoid entangling alliances, foreign conflicts, and international intervention, focusing instead on its own affairs. It was a dominant U.S. policy in the years following World War I, aimed at keeping the nation out of future European wars. What is this policy called?

    Answer: Isolationism

        Team 1:_____   Team 2:_____

28. **Math Computation:** Convert the percent 47.5 percent into a fraction in lowest terms.

    Answer: 19/40

        Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 3
TOSS-UP QUESTIONS

29.   This man was fatally shot in Butler, Pennsylvania on July 13th, 2024. Who is this firefighter who was shot at a Trump rally when a shooter attempted to assassinate Donald Trump?

   Answer: Corey <u>Comperatore</u>

   Team 1:_____   Team 2:_____

30. These raids were carried out by the U.S government in 1919 and 1920 in response to the perceived threat from anarchism and communism following a series of bombings. What are these raids orchestrated by the Attorney General where the U.S. government targeted suspected radicals?

   Answer: <u>Palmer</u> Raids

   Team 1:_____   Team 2:_____

31. This punctuation mark is used to indicate a pause or separation within a sentence. Commonly used to separate items in a series or clauses, what is this mark that can also set off nonessential information?

   Answer: Comma

   Team 1:_____   Team 2:_____

32. **Math Computation:** Subtract the following fractions: 4 1/2 – 2 3/5 [read: four and one half minus two and three fifths] and leave your answer as a mixed number in reduced form.

   Answer: 1 & 9/10

   Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 3
TOSS-UP QUESTIONS

33. This gas law states that the pressure of a fixed amount of gas is directly proportional to its temperature when the volume is kept constant. It describes how increasing the temperature of a gas increases its pressure, as long as the amount of gas and volume do not change. What is the name of this law, fundamental in thermodynamics?

    Answer: Gay-Lussac's Law

        Team 1:_____   Team 2:_____

34. This chief was one of the three regional chiefs of the major divisions of the Choctaw in the 19th century, and was highly regarded for his skill in war and diplomacy. Who is this chief who rejected the offers of alliance offered by Tecumseh, and fought with the United States in the War of 1812?

    Answer: Pushmataha

        Team 1:_____   Team 2:_____

35. This plant hormone is crucial for cell elongation and is responsible for the directional growth of plant shoots toward light and against gravity. It is synthesized mainly in the shoot apical meristem and is transported downward to promote cell growth and division. What is this hormone, widely used in horticulture to regulate plant growth?

    Answer: Auxin

        Team 1:_____   Team 2:_____

36. **Math Computation:** Multiply the following 2 binomials together and simplify the answer: (3 – 6i) (3 + 2i) [read: the quantity 3 minus 6i times the quantity 3 plus 2i]. Put your answer in A + B-I form.

    Answer: 21 – 12i

        Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 3
TOSS-UP QUESTIONS

37. This early wind instrument, popular from the Renaissance through the Baroque period, is made of wood but played with a brass-style mouthpiece. It has a gentle, trumpet-like sound and was often used in ensemble music alongside sackbuts and viols. What is the name of this curved instrument?

    Answer: Cornetto

    Team 1:_____   Team 2:_____

38. This star is the brightest in the constellation Ursa Minor, the Little Bear, and is nearly aligned with Earth's rotational axis. Because of its position, it remains fixed in the sky, marking true north for navigation, while other stars appear to circle around it. Identify this star that has been a guide for travelers for centuries.

    Answer: Polaris

    Team 1:_____   Team 2:_____

39. This was the first major battle of the Mexican–American War and was fought on May 8, 1846. What is this battle where a force of over 3,000 Mexican troops led by General Mariano Arista engaged a force of approximately 2,000 United States troops led by General Zachary Taylor, with the Americans winning?

    Answer: Battle of Palo Alto

    Team 1:_____   Team 2:_____

40. This 16th-century English poet is best known for his allegorical epic, which celebrates Queen Elizabeth I and the virtues of chivalry. His work, written in a distinctive verse form that bears his name, aimed to glorify both England and Protestantism. Who is this poet, author of *The Faerie Queene*?

    Answer: Edmund Spenser

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 5

QUARTER 4
LIGHTNING ROUND

Literature: American Poets and Their Works

Directions: Given the title of a poem by an American author, name the author.

Anyone Lived in a Pretty How Town	E.E. <u>Cummings</u>
Because I Could Not Stop for Death	Emily <u>Dickinson</u>
Casey at the Bat	Ernest <u>Thayer</u>
Chicago	Carl <u>Sandburg</u>
Defence of Fort M'Henry	Francis Scott <u>Key</u>
Israfel	Edgar Allan <u>Poe</u>
Shakespeare in Harlem	<u>Langston Hughes</u>
Song of the Open Road	Walt <u>Whitman</u>
Sunday Morning	Wallace <u>Stevens</u>
Stopping by Woods on a Snowy Evening	Robert <u>Frost</u>

Extras:

Tales of a Wayside Inn	Henry Wadsworth <u>Longfellow</u>
To a Waterfowl	William Cullen <u>Bryant</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 5

QUARTER 4
LIGHTNING ROUND

Fine Arts: Art Terms

Directions: Given the clue, name the art term.

The technique of painting on wet plaster	Fresco
The use of strong contrasts between light and dark	Chiaroscuro
The illusion of depth on a flat surface	Foreshortening
The study of human body proportions in art	Canon
The layering of thin, transparent paint over a dry layer	Glazing
The representation of objects in a way that defies reality	Surrealism
The application of thick paint to create texture	Impasto
The depiction of everyday objects with exaggerated realism	Hyperrealism
The architectural structure used to support a dome or arch	Pendentive
.A composition technique where objects converge at a single point	Linear perspective

Extras:

.The process of incising a design onto a hard surface	Engraving
.The art of painting with pigments mixed with hot wax	Encaustic

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 5

QUARTER 4
LIGHTNING ROUND

Social Studies: Constitutional Amendments

Directions: Given a brief description of a U.S. Constitutional Amendment, name the amendment.

No illegal quartering of troops	<u>Third</u> Amendment
Lame duck amendment	<u>Twentieth</u> Amendment
Suits against states	<u>Eleventh</u> Amendment
Abolition of poll taxes	<u>Twenty-Fourth</u> Amendment
No illegal search or seizure	<u>Fourth</u> Amendment
Prohibited the sale of liquor	<u>Eighteenth</u> Amendment
Established income tax	<u>Sixteenth</u> Amendment
Abolished slavery and involuntary servitude	<u>Thirteenth</u> Amendment
No cruel or unusual punishment	<u>Eighth</u> Amendment
. Two term limit imposed on president	<u>Twenty-Second</u> Amendment

Extras:

. Changed voting age to 18	<u>Twenty-Sixth</u> Amendment
. Right to bear arms	<u>Second</u> Amendment

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 5

Extra Questions

E1.   **Math Computation:** What is the sample variance in a normally distributed range of data, if the sample standard deviation is 16?

Answer: 256

E2.   This influential labor leader and civil rights activist co-founded the National Farm Workers Association. Who was this activist who led a successful grape boycott in the 1960s and 1970s that resulted in higher wages and improved working conditions for farmworkers in California?

Answer: Cesar Chavez

E3.   This film and television production studio was founded by Jean Chalopin and is best known for their animated series. What is this studio that put out hit cartoons such as *Inspector Gadget*, *Care Bears*, and *Sonic the Hedgehog*?

Answer: DIC (Diffusion Information Communications)

E4.   This type of orbit occurs when a satellite revolves around the Earth at the same rotational speed as the planet, causing it to remain in a fixed position relative to a specific point on the Earth's surface. It is commonly used for communications and weather satellites. What is this orbit called?

Answer: Geosynchronous orbit

E5.   This grammatical term is a punctuation mark that is characterized by using a comma to separate the last two items in a list. What is this type of comma that is optional, but used by many?

Answer: Serial Comma (Accept: Oxford Comma)

E6.   **Math Computation:** Matthew's gross pay is $350. He pays $72 in FICA, $59 in federal taxes, and $8.50 in state taxes. What will be his net pay?

Answer: 210.5

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REGIONAL GAME 5

E7.   This American modernist artist is known as the "Mother of American modernism" and is known for her paintings of desert landscapes and flowers. Who is this painter who might be best known for her paintings of longhorn skulls with such pieces like *Summer Days and Cow's Skull: Red White and Blue*?

Answer: Georgia <u>O'Keefe</u>

E8.   This type of chemical reaction involves the replacement of one atom or group of atoms in a molecule with another atom or group. Common in organic chemistry, it typically occurs in reactions involving halogens or nucleophiles. What is this process called, where one functional group is exchanged for another?

Answer: <u>Substitution</u> reaction (single displacement or single substitution)

E9.   This play follows the Younger family as they struggle with racial and economic challenges while deciding how to use a life insurance payout. Set in Chicago, the story explores themes of identity, dreams, and social justice in mid-20th-century America. What is the title of this 1959 work by Lorraine Hansberry?

Answer: *A Raisin in the Sun*

E10.   This famous pharaoh, known as the last of the native Egyptian rulers, was defeated by Alexander the Great in 332 BCE, marking a significant point in Egypt's decline into becoming a part of the Hellenistic world. Who is this pharaoh who also established a new capital at Alexandria?

Answer: Cleopatra VII

OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 1
TOSS-UP QUESTIONS

1. This woman was the mother of Samuel, the last judge of Israel. She prayed fervently for a child and promised to dedicate him to God's service. Who is this woman whose prayer of thanksgiving is recorded in the book of 1 Samuel?

   Answer: Hannah

   Team 1:_____   Team 2:_____

2. **Math Computation:** Find all solutions to the quadratic equation: $x^2 - 3x = 10$ [x squared minus 3x equals 10]. You could use the completing the square method to solve this equation.

   Answer: (x=) 5, -2 [must have both]

   Team 1:_____   Team 2:_____

3. This class of angiosperms is characterized by having two cotyledons in their seeds and usually net-like leaf venation. They typically exhibit a taproot system and floral parts in multiples of four or five. What is this group of flowering plants that includes legumes, roses, and sunflowers?

   Answer: Dicots (or Dicotyledons or Manoliopsida)

   Team 1:_____   Team 2:_____

4. This novel tells the life story of Philip Carey, an orphan with a club foot, who seeks fulfillment. Philip's journey includes his pursuit of art, difficult relationships, and his quest for meaning. The novel reflects the author's own experiences. Name this work by W. Somerset Maugham, published in 1915.

   Answer: Of Human Bondage

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 1
TOSS-UP QUESTIONS

5. This social media site was bought by Elon Musk in 2023, and changed from its original name of "Twitter". What is this site that allows users to share their thoughts and opinions through means of short writings, images, or hashtags?

   Answer: X

   Team 1:_____   **Team 2:_____**

6. **Math Computation:** What is the degree of the following polynomial? 3x^4 y^6 + 2x^2 y^5 [3 x to the fourth y to the sixth plus 2 x squared y to the fifth].

   Answer: 10

   Team 1:_____   **Team 2:_____**

7. This band of constellations lies along the ecliptic, the path that the Sun appears to follow throughout the year. It includes 12 traditional constellations that have been used in astrology to associate personality traits with birth dates. Identify this band of constellations.

   Answer: Zodiac

   Team 1:_____   **Team 2:_____**

8. This Mexican painter is celebrated for her deeply personal and symbolic self-portraits. Her works include *Self-Portrait with Thorn Necklace and Hummingbird* and *Diego and I*. Who is this artist who is also known for her tumultuous marriage to Diego Rivera?

   Answer: Frida Kahlo

   Team 1:_____   **Team 2:_____**

OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 1
TOSS-UP QUESTIONS

9. This element is used in a variety of applications from strengthening aircraft materials to treating bipolar disorder. It also plays a critical role in nuclear fusion reactions in stars. This lightweight metal is known for its high reactivity, especially in water, where it forms hydroxide and hydrogen gas, name this third element on the periodic table.

   Answer: Lithium

   Team 1:_____   Team 2:_____

10. This capital city in Southern Africa is known for its proximity to the famous Victoria Falls, one of the largest and most spectacular waterfalls in the world. What is this capital city of Zambia that is known as a center for adventure tourism?

    Answer: Lusaka

    Team 1:_____   Team 2:_____

11. This winter sport has teams slide heavy, polished granite stones towards a target area segmented into four concentric circles. What is this sport where players use brooms to influence the stone's path and speed across the ice?

    Answer: Curling

    Team 1:_____   Team 2:_____

12. This street in New York City was famously associated with jazz music during the 1930s and 1940s. It became a hub for legendary musicians such as Charlie Parker, Dizzy Gillespie, and Miles Davis, who performed in the clubs lining the street. Name this street, often referred to as "Swing Street," known for its vibrant jazz scene.

    Answer: *52nd* Street

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 1
TOSS-UP QUESTIONS

13. This term refers to the matter and radiation that exists in the space between star systems in a galaxy. It consists of gas, dust, and cosmic rays, and plays a crucial role in the formation of stars and planetary systems. Hydrogen is the most abundant element found in this space. Name this material that fills the space between stars.

    Answer: Interstellar Medium

    Team 1:_____   Team 2:_____

14. **Science computation:** What is the power rating, in watts, of a light bulb that has a potential difference of 8 volts and has a resistance of 4 ohms? It will be useful to recall Joule's law where power is equal to the current squared divided by the resistance.

    Answer: 16

    Team 1:_____   Team 2:_____

15. This tax is imposed on the transfer of property or money from one individual to another without receiving something of equal value in return. In the United States, there are annual exclusions and lifetime exemptions that allow individuals to give away certain amounts without incurring the tax. Name this type of tax.

    Answer: Gift Tax

    Team 1:_____   Team 2:_____

16. This play, a cornerstone of absurdist theater, features two main characters, Vladimir and Estragon, who engage in repetitive conversations while waiting for the arrival of someone who never appears. The work explores themes of existentialism, futility, and the human condition. Name this play written by Samuel Beckett.

    Answer: *Waiting for Godot*

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 1
TOSS-UP QUESTIONS

17. This term refers to the rights of citizens to participate freely in their government, primarily through voting and protected free speech. These principles are considered essential to the functioning of democracies. It encompasses freedoms guaranteed by the US constitution, primarily from the First Amendment. What is this two-word term for such rights?

    Answer: Civil Liberties

    Team 1:_____   Team 2:_____

18. **Science computation:** A wave, of wavelength 2.4 meters, oscillates at 6.3 hertz. What is the speed of the wave in meters per second?

    Answer: 15.12

    Team 1:_____   Team 2:_____

19. This historic town in Oklahoma is the site of the Battle of Honey Springs, the largest Civil War battle fought in Indian Territory. It is also known for hosting an annual blues festival started by D.C. Minner. Name this town, the birthplace of civil rights leader John Hope Franklin, and one of Oklahoma's early All-Black towns.

    Answer: Rentiesville

    Team 1:_____   Team 2:_____

20. This epic poem follows the journey of a Trojan hero who, after escaping the fall of Troy, is destined to found the city that will become Rome. Along the way, he faces challenges such as a tragic love affair with Queen Dido and a descent into the underworld. Name this work by Virgil that tells the story of Aeneas.

    Answer: *The Aeneid*

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 2
LIGHTNING ROUND

Pop Culture: Current NFL Head Coaches

Directions: Given an NFL team, name the current head coach as of October 2024

Atlanta Falcons   Raheem <u>Morris</u>

Chicago Bears   Matt <u>Eberflus</u>

Green Bay Packers   Matt <u>LaFleur</u>

Kansas City Chiefs   Andy <u>Reid</u>

Tennessee Titans   Brian <u>Callahan</u>

Pittsburgh Steelers   Mike <u>Tomlin</u>

San Francisco 49ers   Kyle <u>Shanahan</u>

New York Giants   Brian <u>Daboll</u>

Dallas Cowboys   Mike <u>McCarthy</u>

.Cleveland Browns   Kevin <u>Stefanski</u>

Extras:

.Baltimore Ravens   <u>John</u> <u>Harbaugh</u>

.Indianapolis Colts   Shane <u>Steichen</u>

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 2
LIGHTNING ROUND

Pop Culture: NHL Teams and Their Division

Directions: Given a team name, identify the conference and division they play in.

New York Rangers   Eastern Conference Metropolitan

Edmonton Oilers   Western Conference Pacific

Toronto Maple Leafs   Eastern Conference Atlantic

Pittsburgh Penguins   Eastern Conference Metropolitan

Colorado Avalanche   Western Conference Central

Los Angeles Kings   Western Conference Pacific

Minnesota Wild   Western Conference Central

Carolina Hurricanes   Eastern Conference Metropolitan

Boston Bruins   Eastern Conference Atlantic

.Chicago Blackhawks   Western Conference Central

Extras:

.Boston Bruins   Eastern Conference Atlantic

.Tampa Bay Lightning   Eastern Conference Atlantic

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 2
LIGHTNING ROUND

Pop Culture: Fall Out Boy Lyrics

Directions: Given the lyric, name the song by Fall Out Boy.

You say we are what we are but we don't have to be — *Immortals*

The best of us can find happiness in misery — *I Don't Care*

I only think in the form of crunching numbers — *Thanks fr th Mmrs (Thanks for the Memories)*

Some legends are told some turn to dust or to gold — *Centuries*

She says she's no good with words but I'm worse — *Dance Dance*

One look from you and I'm on that faded love — *Heaven's Gate*

I don't blame you for being you but you can't blame me for hating it — *A Little Less Sixteen Candles, A Little More Touch Me*

I am an arms dealer fitting you with weapons in the form of words — *This Ain't a Scene, It's An Arms Race*

Every lover's got a little dagger in their hand — *Love From the Other Side*

.I can move mountains I can work a miracle — *Uma Thurman*

Extras:

.I'll be your number one with a bullet a loaded God complex cock it and pull it — *Sugar, We're Going Down*

.So boycott love, detox just to retox — *Disloyal Order of the Water Buffaloes*

OSSAA 2024-2025
REGIONAL GAME 6
Team 1:_____   Team 2:_____
QUARTER 3
TOSS-UP QUESTIONS

21. This novel is a darkly humorous account of the lives and eccentricities of a British family living in a crumbling mansion. The protagonist, Mortmain, is an eccentric writer who struggles to regain his creativity while his family deals with poverty and romantic entanglements. Name this work by Dodie Smith, published in 1948.

    Answer: *I Capture the Castle*

    Team 1:_____   Team 2:_____

22. This popular TV character is the sidekick to Fry in the animated series Futurama. Who is this character, a sarcastic robot whose name is taken from a famous character in *The Breakfast Club*?

    Answer: Bender

    Team 1:_____   Team 2:_____

23. This economic policy, implemented in the 1980s, focused on reducing taxes, particularly for the wealthy and businesses, with the aim of promoting investment and economic growth. It also emphasized deregulation and reducing government spending on social programs. Name this policy associated with the presidency of Ronald Reagan.

    Answer: Reaganomics (or Reaganism)

    Team 1:_____   Team 2:_____

24. **Math Computation:** Simplify: $e^{\ln 6} + \ln(e^2)$ [e to the power natural log of 6 plus natural log of e to the second power].

    Answer: 8

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 3
TOSS-UP QUESTIONS

25. This celestial object consists of a nucleus made of ice, dust, and rocky material. As it approaches the Sun, it develops a glowing coma and a tail. These objects follow elliptical orbits and can often be seen from Earth when they are near the Sun. Name this type of astronomical body, examples of which include Halley's.

    Answer: Comet

    Team 1:_____   Team 2:_____

26. This play is a satirical comedy that explores themes of social conventions, identity, and the absurdities of Victorian society. It revolves around two characters, Jack Worthing and Algernon Moncrieff, who create fictitious identities to escape social obligations. Name this play by Oscar Wilde, known for its witty dialogue and farcical situations.

    Answer: *The Importance of Being Earnest*

    Team 1:_____   Team 2:_____

27. This scientist is known for his groundbreaking work in physics, mathematics, and astronomy. He formulated the three laws of motion and the law of universal gravitation, which explain the movement of objects on Earth and in space. Name this English physicist and mathematician, author of *Principia Mathematica*.

    Answer: Sir Isaac <u>Newton</u>

    Team 1:_____   Team 2:_____

28. This Latin abbreviation is used in academic writing to indicate that additional authors are included beyond those listed. What is this abbreviation that stands for "and others"?

    Answer: Et al

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 3
TOSS-UP QUESTIONS

29. **Math Computation:** Solve the following logarithmic equation for x: log(64)x = 3/2 [read: log base 64 of x equals 3 over 2].

    Answer: (x=) 512

        Team 1:_____   Team 2:_____

30. This politician was a teacher who later became a congressman and the governor of Minnesota. Who is the current Democratic Vice Presidential candidate and running mate of Kamala Harris in the 2024 election?

    Answer: Tim <u>Walz</u>

        Team 1:_____   Team 2:_____

31. This term refers to the minimum amount of energy required for a chemical reaction to occur. It represents the energy barrier that reactants must overcome to transform into products. Catalysts lower this energy, speeding up the reaction without being consumed. Name this concept in chemistry that determines the rate of a reaction.

    Answer: Activation energy

        Team 1:_____   Team 2:_____

32. This decorative art technique involves creating compartments or "cells" on a metal object using thin wires, which are then filled with enamel, glass, or gemstones. The piece is fired in a kiln to fuse the materials, resulting in colorful, intricate designs. Name this ancient technique commonly used in jewelry and decorative objects.

    Answer: Cloisonné

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 6

QUARTER 3
TOSS-UP QUESTIONS

33. This novel tells the story of two displaced ranch workers, George and his companion Lennie, who dream of owning their own land during the Great Depression. The novel explores themes of friendship, dreams, and the harsh realities of life for migrant workers. Name this work by John Steinbeck.

    Answer: *Of Mice and Men*

    Team 1:_____   Team 2:_____

34. This process occurs in plants, particularly deciduous trees, as a response to environmental changes. It involves the shedding of leaves, triggered by the formation of a specialized layer of cells at the base of the leaf stalk, which helps to conserve water and energy. Name this natural process that causes leaves to fall off trees.

    Answer: Leaf <u>abscission</u>

    Team 1:_____   Team 2:_____

35. **Science computation:** Convert 345 nanoseconds into milliseconds in correct scientific notation.

    Answer: 3.45×10^{-4} [read: 3.45 times ten to the negative fourth (power)]

    Team 1:_____   Team 2:_____

36. This region in the central U.S. serves as a transition zone between eastern forests and western grasslands. It stretches through parts of Oklahoma, Texas, and Kansas, and is known for its mix of prairie and woodland, with ancient post oak and blackjack oak trees. Name this area significant to Native American history and early settlers.

    Answer: Cross Timbers

    Team 1:_____   Team 2:_____

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REGIONAL GAME 6

QUARTER 3
TOSS-UP QUESTIONS

37. This element in theater refers to the emotional atmosphere created by the combination of lighting, sound, set design, and the actors' performances. It helps to evoke specific feelings in the audience, such as tension, joy, or fear. Name this aspect of theater that influences the emotional experience of the audience.

    Answer: Mood

        Team 1:_____   Team 2:_____

38. This scientist made groundbreaking discoveries in electromagnetism and electrochemistry, including electromagnetic induction, which paved the way for electric generators. He also developed the laws of electrolysis and invented a cage that blocks electric fields. Name this 19th-century British physicist and chemist.

    Answer: Michael <u>Faraday</u>

        Team 1:_____   Team 2:_____

39. This location was the site of a pivotal World War II battle during the Pacific campaign, where American forces fought to capture a strategic Japanese stronghold. It is remembered for the heroic actions of Desmond Doss, a medic who saved dozens of soldiers without carrying a weapon. Name this ridge on the island of Okinawa.

    Answer: <u>Hacksaw</u> Ridge (or Maeda Escarpment)

        Team 1:_____   Team 2:_____

40. **Math Computation:** Find the inverse function of the equation: $y = -4x - 20$ and express your answer in slope-intercept form.

    Answer: $y = -1/4x - 5$ [read: y equals negative one fourth x minus 5]

        Team 1:_____   Team 2:_____

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REGIONAL GAME 6

QUARTER 4
LIGHTNING ROUND

Math: ABC's

Directions: Identify the math term starting with the given letter.

A: The value that a function approaches as the input approaches a certain value.

Asymptote

B: A polynomial that consists of exactly two terms connected by a plus (+) or minus (−) sign.

Binomial

C: The set of all possible outputs of a function.

Codomain

D: The measure of how much a function's value changes as its input changes, represented by the slope of the tangent line.

Derivative

E: The process of finding a common solution to two or more equations.

Elimination

F: The product of all positive integers less than or equal to

Factorial

G: The rate of change or slope of a function.

Gradient

H: where the outcome or change is proportional to the current state.

Homogeneous

I: A number that cannot be expressed as the ratio of two integers.

Irrational number

.J: The probability of two (or more) events occurring simultaneously.

Joint Probability

Extras:

.K: The set of all vectors that map to the zero vector under the given linear transformation.

Kernel

.L: The inverse operation to exponentiation.

Logarithm

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REGIONAL GAME 6
Team 1:_____ Team 2:_____
QUARTER 4
LIGHTNING ROUND

Science: Chemistry - Charges on Polyatomic Ions

Directions: Identify the charge on each of the following polyatomic ions. Be sure to say positive or negative, as in the charge on sulfate is two negative.

Ammonium	1 positive
Phosphate	3 negative
Nitrate	1 negative
Carbonate	2 negative
Permanganate	1 negative
Sulfide	2 negative
Cyanide	1 negative
Chromate	2 negative
Dichromate	2 negative
. Hydronium	1 positive

Extras:

. Arsenate	3 negative
. Acetate	1 negative

Team 1:_____ Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 6
QUARTER 4
LIGHTNING ROUND**

Literature: American Playwrights and Their Works

Directions: Given the title of a play by an American playwright, name the author.

Barefoot in the Park	Neil <u>Simon</u>
Cyrano de Bergerac	Edmond Rostand
The Crucible	Arthur <u>Miller</u>
The Critic	Richard Brinsley <u>Sheridan</u>
The Night of the Iguana	Tennessee <u>Williams</u>
The Philadelphia Story	Phillip <u>Barry</u>
Who's Afraid of Virginia Woolf	Edward <u>Albee</u>
Winterset	Maxwell <u>Anderson</u>
The Piano Lesson	August <u>Wilson</u>
.*The Man Who Came to Dinner*	George <u>Kaufman</u> and Moss <u>Hart</u>

Extras:

.*The Man from Home*

Booth <u>Tarkington</u>

.*The Drunkard*

William Henry <u>Smith</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 6

Extra Questions

E1.   This 2023 film is the final entry into the DCEU because of a franchise-wide reboot. What is this film, directed by James Wan, that sees Jason Momoa return as the king of Atlantis who has to team up with his brother to defeat Black Manta?

Answer: *Aquaman and the Lost Kingdom*

E2.   This Babylonian king is famous for his comprehensive code of laws. His legal code established justice throughout his empire and is one of the earliest examples of written law. He ruled from 1792 to 1750 B.C. Who is this king?

Answer: Hammurabi

E3.   **Math Computation:** A rhombus has diagonals of length 12 and 16. What is the length of each side of the rhombus?

Answer: 10

E4.   This landmark Supreme Court decision affirmed that the Second Amendment protects an individual's right to possess a firearm, unconnected with service in a militia, and to use that arm for traditionally lawful purposes, such as self-defense within the home. The case originated from a challenge to Washington, D.C.'s handgun ban. What is this 2008 case?

Answer: District of Columbia v. Heller

E5.   This mineral, often mistaken for gold due to its metallic luster and yellowish color, is commonly known as "fool's gold." Composed of iron sulfide, it is found in various geological formations and is used in the production of sulfur and sulfuric acid. Name this mineral with the chemical formula FeS_2.

Answer: Pyrite

E6.   **Math Computation:** What is the circumference of a circle that has an area of 900 pi units squared?

Answer: 60 pi

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E7.   This author is known for his meticulous writing style and for pioneering the realist movement in literature. His most famous work focuses on the tragic life of a provincial woman who seeks fulfillment through romantic affairs, only to face disillusionment. Name this French novelist, the author of *Madame Bovary*.

Answer: Gustave <u>Flaubert</u>

E8.   These intervals are one half step larger than their major or perfect counterparts. For example, a fourth that spans six semitones instead of the typical five fits this category. These intervals are often used to create tension or dissonance in music. Name this type of interval in music theory.

Answer: <u>Augmented</u> Intervals

E9.   This play revolves around a tumultuous evening between two couples, George and Martha, and Nick and Honey. The older couple engages in psychological games, revealing deep frustrations and hidden truths, as the night spirals into emotional chaos. Name this play by Edward Albee, known for its sharp dialogue and exploration of marital discord.

Answer: *Who's Afraid of Virginia Woolf?*

E10.   This optical device, developed in the 19th century, is composed of concentric rings that focus light into a powerful beam while using less material than a traditional lens. It is commonly used in lighthouses, allowing light to be visible over long distances. Name this lens, designed by a French physicist.

Answer: <u>Fresnel</u> Lens

OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 1
TOSS-UP QUESTIONS

1. This force acts on an object moving in a circular path, directed toward the center of the circle, keeping the object in its curved trajectory. It is necessary for maintaining circular motion and is provided by forces such as tension, gravity, or friction. Name this force that pulls objects toward the center of a circular path.

   Answer: <u>Centripetal</u> force

   Team 1:_____   Team 2:_____

2. This man became viral for the 2024 summer Olympics in Paris. Who is this Turkish man who got the silver medal for pistol shooting and became a viral sensation for his demeanor and casual shooting style?

   Answer: Yusef <u>Dikec</u>

   Team 1:_____   Team 2:_____

3. This term refers to the political and ideological barrier that divided Europe during the Cold War. It symbolized the separation between the Soviet-controlled Eastern Bloc and the Western nations aligned with the United States and NATO. The phrase was popularized by Winston Churchill. Name this metaphor for the division of Europe.

   Answer: Iron Curtain

   Team 1:_____   Team 2:_____

4. This biological relationship occurs when one organism benefits at the expense of another, often causing harm to the host. The benefiting organism relies on the host for nutrients, shelter, or other resources, sometimes leading to disease or death of the host. Name this type of symbiotic relationship, common in nature.

   Answer: Parasitism

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 1
TOSS-UP QUESTIONS

5. This city was the site of a key event in American history on June 19, 1865, when Union troops arrived to announce the emancipation of enslaved people in Texas, marking the origin of Juneteenth. It was also devastated by a deadly hurricane in 1900. Name this city located on the Gulf Coast of Texas.

    Answer: Galveston

    Team 1:_____   Team 2:_____

6. **Math Computation:** What is the derivative of y, with respect to x, at x = 4, if: y = 3x^3 + 5x - 7 [read: y equals 3 x cubed plus 5x minus 7]?

    Answer: 149

    Team 1:_____   Team 2:_____

7. After experiencing thruster issues in space, Boeing's Starliner capsule returned to Earth without its two NASA astronauts. What is the name of the backup spacecraft that, as of September 9, 2024, NASA plans to use to bring these astronauts back from the ISS in February 2025?

    Answer: SpaceX Crew Dragon

    Team 1:_____   Team 2:_____

8. This cinematographic technique is used to establish the context, location, and spatial relationships within a scene. Which shot type is often used to set the scene in films and is exemplified by the opening shots of expansive landscapes in movies like "Lawrence of Arabia"?

    Answer: Wide Shot (also accept long or full shot)

    Team 1:_____   Team 2:_____

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REGIONAL GAME 7
QUARTER 1
TOSS-UP QUESTIONS

9. This short story depicts a prince who hosts a lavish, secluded ball in his abbey while a deadly plague ravages the outside world. As the masked revelers move through color-themed rooms, a mysterious figure in red arrives, symbolizing the inescapability of death. Name this Gothic tale by Edgar Allan Poe.

   Answer: *Masque of the Red Death*

   Team 1:_____   Team 2:_____

10. **Math Computation:** Solve the following inequality: 2(4m + 1) < 5m - 10 [2 times the quantity 4m plus 1 end quantity is less than 5m minus 10].

    Answer: m < -4 [m is less than negative 4 or negative 4 is greater than m]

    Team 1:_____   Team 2:_____

11. This modernist writer is known for her experimental narrative techniques, including stream-of-consciousness, and her exploration of psychological depth and feminism. Her notable works include *Mrs. Dalloway* and *To the Lighthouse*, which examine the inner lives of characters. Name this British author, a key figure in 20th-century literature.

    Answer: Virginia Woolf

    Team 1:_____   Team 2:_____

12. This type of learning occurs when an individual acquires new behaviors or information by watching others. It plays a key role in socialization and can involve imitation or modeling, as demonstrated in Albert Bandura's famous Bobo doll experiment. Name this learning process where behaviors are learned by observing others.

    Answer: <u>Social</u> Learning Theory (<u>Observational</u> Learning)

    Team 1:_____   Team 2:_____

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REGIONAL GAME 7
QUARTER 1
TOSS-UP QUESTIONS

13. This novel, set in the reign of Louis XIV, tells the story of a mysterious prisoner whose face is hidden behind a mask. The plot centers on a conspiracy to replace the king with this imprisoned figure, who is revealed to be his twin brother. Name this novel, part of *The Vicomte de Bragelonne*, written by Alexandre Dumas.

    Answer: *The Man in the Iron Mask*

        Team 1:_____   Team 2:_____

14. This defensive architectural feature, often found atop castle walls, consists of alternating raised sections (merlons) and lower gaps (crenels), allowing defenders to fire arrows or other projectiles while taking cover behind the raised portions. What is the name of this notched parapet structure commonly associated with medieval fortifications?

    Answer: Battlements

        Team 1:_____   Team 2:_____

15. **Math Computation:** What is the minimum value of the parabola with the following equation: $y = 3(x + 2)^2 - 5$ [read: y equals 3 times the quantity x plus 2 end quantity squared minus 5].

    Answer: -5

        Team 1:_____   Team 2:_____

16. This independent agency of the United States government is responsible for enforcing campaign finance laws in federal elections. It regulates contributions to political campaigns, oversees public funding for presidential campaigns, and ensures transparency in political fundraising. Name this agency, often abbreviated as the FEC.

    Answer: Federal Election Commission

        Team 1:_____   Team 2:_____

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REGIONAL GAME 7
QUARTER 1
TOSS-UP QUESTIONS

17. This novel is presented in the form of letters, diary entries, and documents, portraying the political and personal intrigues surrounding the final days of Julius Caesar's life. Set in ancient Rome, it explores themes of power, betrayal, and fate. Name this historical novel written by Thornton Wilder.

    Answer: *The Ides of March*

        Team 1:_____   **Team 2:_____**

18. This concept in stoichiometry is essential for preparing solutions for laboratory experiments and industrial processes. It deals with the concentration of solutions and is expressed in moles of solute per liter of solution. What is this unit of concentration commonly known as?

    Answer: Molarity

        Team 1:_____   **Team 2:_____**

19. This Norse explorer is known for founding the first Norse settlement in Greenland after being exiled from Iceland. His bold exploration and colonization efforts paved the way for future Viking expeditions to the North Atlantic. Name this Viking leader, father of Leif Erikson.

    Answer: Erik the Red

        Team 1:_____   **Team 2:_____**

20. **Math Computation:** Convert the decimal 0.36 repeating into a fraction in lowest terms.

    Answer: 4 / 11

        Team 1:_____   **Team 2:_____**

**OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 2
LIGHTNING ROUND**

Fine Arts: Pop Artists and Their Works

Directions: Given the work, name the pop artist

Marilyn Diptych	Andy <u>Warhol</u>
Whaam!	Roy <u>Lichtenstein</u>
I was a Rich Man's Plaything	Eduardo <u>Paolozzi</u>
Just What Is It That Makes Today's Homes So Different, So Appealing?	Richard <u>Hamilton</u>
Still Life #30	Tom <u>Wesselmann</u>
Estate	Robert <u>Rauschenberg</u>
Girl with Radish	Marjorie <u>Strider</u>
Three Flags	Jasper <u>Johns</u>
Radiant Baby	Keith <u>Haring</u>
.Spoonbridge and Cherry	Claes <u>Oldenburg</u>

Extras:

.I Love You with My Ford	James <u>Rosenquist</u>
.The Defenders	Rosalyn <u>Drexler</u>

Team 1:_____   Team 2:_____

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REGIONAL GAME 7
QUARTER 2
LIGHTNING ROUND

Fine Arts: Stagecraft/Rigging Terms

Directions: Identify the stagecraft or rigging term from the description.

The recessed area in front of the stage where the orchestra plays.	Orchestra Pit
The large arch that separates the stage from the audience, framing the performance.	Proscenium
A large fabric backdrop, often used for sky effects, typically at the back of the stage.	Cyclorama
A horizontal pipe used to hang lights, curtains, or scenery.	Batten
The offstage spaces to the left and right, hidden from the audience.	Wings
The tall vertical space above the stage used for flying scenery and lights out of view.	Fly Loft (Fly Tower)
The section of the stage that extends toward the audience in front of the proscenium.	Apron
A curtain that opens and closes horizontally along a track.	Traveler
The part of the stage farthest from the audience.	Upstage
.Scenery or lighting equipment that is permanently fixed in place and cannot be moved.	Dead-Hung

Extras:

.A hidden door in the stage floor for special entrances and effects.	Trap Door
.A lightweight, plain-woven cotton fabric often used for stage backdrops and scenery.	Muslin

Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 2
LIGHTNING ROUND**

MATH: NEXT NUMBERS IN THE SEQUENCE

Directions: Directions: Find the next number in each of the following sequences.

1, 4, 9, 16, …	25
2, 9, 16, …	23
2, 6, 18, …	54
1, 3, 7, 15, …	31
10, 20, 30, …	40
4, 10, 22, 46, …	94
3, 8, 15, 24, …	35
5, 12, 19, 26, …	33
7, 14, 28, 56, …	112
.-1, 1, 5, 12, 23, …	39

Extras:

.24, 16, 32/3, …	64/9 (or 7&1/9)
.2, 3, 5, 8, 13, …	21

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 7

QUARTER 3
TOSS-UP QUESTIONS

21. Known for her distinctive use of polka dots and repetitive patterns, this contemporary Japanese artist has created both installations and sculptures. Her work often explores themes of infinity and the sublime. Who is this artist famous for her series of mirrored "Infinity Rooms" and the pumpkin sculptures?

    Answer: Yayoi Kusama

    Team 1:_____   **Team 2:_____**

22. In geometry, what name is given to a quadrilateral with two pairs of opposite sides that are congruent?

    Answer: Parallelogram

    Team 1:_____   **Team 2:_____**

23. This novel serves as a prequel to *Peter Pan*, following the adventures of an orphan boy and a young girl named Molly as they attempt to protect a magical substance from pirates and evil forces. The book explores how Peter becomes the boy who never grows up. Name this novel co-written by Dave Barry and Ridley Pearson.

    Answer: *Peter and the Starcatchers*

    Team 1:_____   **Team 2:_____**

24. In economics, this measure provides insights into a country's competitiveness in international trade. A positive value indicates that a country exports more than it imports, contributing to economic growth. What term is used for the total value of a country's exports minus the total value of its imports?

    Answer: Balance of Trade

    Team 1:_____   **Team 2:_____**

OSSAA 2024-2025
REGIONAL GAME 7

QUARTER 3
TOSS-UP QUESTIONS

25. This author is known for his work across multiple genres, including fantasy, horror, and science fiction. His notable works include *American Gods*, which explores mythology in modern America, and *Coraline*, a dark fantasy about a girl who discovers an alternate world. Name this British author also known for *The Sandman* graphic novels.

    Answer: Neil <u>Gaiman</u>

    Team 1:_____   Team 2:_____

26. This philosopher is best known for his contributions to political theory and epistemology. His ideas on natural rights, including life, liberty, and property, greatly influenced the development of modern democracy. Name this Enlightenment thinker, author of *Two Treatises of Government*.

    Answer: John <u>Locke</u>

    Team 1:_____   Team 2:_____

27. This type of chemical reaction occurs when an acid reacts with a base to produce water and a salt. It typically results in a solution that has a neutral pH, depending on the strengths of the acid and base involved. Name this reaction commonly seen in titrations.

    Answer: <u>Neutralization</u> reaction (<u>acid-base</u> reaction)

    Team 1:_____   Team 2:_____

28. This 2010 platforming video game is well known for being the catalyst for Disney buying back *Oswald the Lucky Rabbit* from Universal, trading real life sports commentator Al Michaels to get Oswald. What is this video game where players control Disney's most iconic mascot as he uses a magic paint brush.

    Answer: *Epic Mickey*

    Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 3
TOSS-UP QUESTIONS

29. This trilogy of Greek tragedies follows the curse on the House of Atreus, beginning with the murder of Agamemnon by his wife Clytemnestra and concluding with the trial of their son Orestes. It explores themes of justice, revenge, and the intervention of the gods. Name this work by Aeschylus, the only surviving complete trilogy from ancient Greece.

    Answer: *The Oresteia*

        Team 1:_____   Team 2:_____

30. **Science computation:** A car decelerates evenly at -1.2 meters per second squared for 16 seconds. If the initial velocity was 36 meters per second squared, what will be the final velocity in meters per second squared?

    Answer: 16.8

        Team 1:_____   Team 2:_____

31. This play follows the intertwining stories of four lovers, a group of amateur actors, and the magical beings of an enchanted forest. With themes of love, confusion, and transformation, it features characters like Oberon, Titania, and Puck. Name this Shakespearean comedy, set in Athens and a mystical woodland.

    Answer: *A Midsummer Night's Dream*

        Team 1:_____   Team 2:_____

32. These small, soft dumplings are a staple in Italian cuisine and are typically made from potatoes, flour, and eggs. What are these dumplings that can be boiled and served with a variety of sauces, such as tomato, pesto, or browned butter with sage?

    Answer: Gnocchi

        Team 1:_____   Team 2:_____

**OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 3
TOSS-UP QUESTIONS**

33. **Math Computation:** Subtract 15.7 from 28.614.

   Answer: 12.914

      Team 1:_____   Team 2:_____

34. This city, the capital of Malaysia, is known for its modern skyline, dominated by the iconic Petronas Twin Towers, once the tallest buildings in the world. It serves as the country's cultural, financial, and economic hub, blending colonial architecture with contemporary design. Name this bustling metropolis located on the Malay Peninsula.

   Answer: Kuala Lumpur

      Team 1:_____   Team 2:_____

35. This quantum phenomenon occurs when particles pass through a potential energy barrier that they classically should not have enough energy to overcome. It plays a key role in processes like nuclear fusion in stars and is fundamental in the operation of modern technologies. Name this phenomenon observed in quantum mechanics.

   Answer: Quantum <u>Tunneling</u> (or barrier penetration)

      Team 1:_____   Team 2:_____

36. This legendary character sells his soul to the devil in exchange for unlimited knowledge and worldly pleasures. His tragic story has been adapted by numerous authors, with Johann Wolfgang von Goethe's version being the most famous. Name this character who makes a pact with Mephistopheles.

   Answer: Faust

      Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 7
QUARTER 3
TOSS-UP QUESTIONS

37. This neurotransmitter plays a crucial role in both the central and peripheral nervous systems, particularly in transmitting signals across neuromuscular junctions to initiate muscle contraction. It is also involved in functions such as memory and learning. Name this chemical messenger, often associated with motor control and cognitive processes.

    Answer: Acetylcholine

        Team 1:_____   Team 2:_____

38. **Math Computation:** Solve the following system of equations using substitution: y = 3x + 4 and x + y = -2. Express your answer as coordinates, (x, y) [read: x comma y].

    Answer: (-3/2, -1/2)

        Team 1:_____   Team 2:_____

39. This financial term refers to how easily an asset can be converted into cash without a significant loss in value. Assets such as stocks and bonds can typically be sold quickly, while real estate or collectibles take more time to sell. Name this term that measures the availability of cash or cash-convertible assets.

    Answer: Liquidity

        Team 1:_____   Team 2:_____

40. This experiment, conducted in the late 18th century, was the first to measure the force of gravitational attraction between masses in a laboratory setting. It also allowed for the calculation of the Earth's density and led to the determination of the gravitational constant. Name this experiment performed by a British scientist using a torsion balance.

    Answer: <u>Cavendish</u> Experiment

        Team 1:_____   Team 2:_____

Math: Calculus

Directions: Solve the calculus problem or identify the concept described.

What is the derivative of $13x^2$? $26x$

What is the integral of $2x$? $x^2 + C$

What is the derivative of $\sin(x)$? $\cos(x)$

What is the derivative of $\cos(x)$? $-\sin(x)$

What is the limit of (read as: x squared minus four over x minus two 4
$(x^2 - 4)/(x - 2)$ as x approaches 2?

What is the derivative of e^x? e^x

What is the integral of $1/x$? $\ln$

What is the second derivative of x^3? $6x$

What is the antiderivative of $3x^2$? $x^3 + C$

. What is the derivative of $\ln(x)$? $1/x$

Extras:

. What is the integral of $\sin(x)$? $-\cos(x) + C$

. What is the derivative of $\tan(x)$? $\sec^2(x)$

Team 1:_____   **Team 2:_____**

SCIENCE: Biology - Vertebrate Classes

Directions: For each of the following animals, identify which vertebrate class it is sorted into. Make sure to give the scientific name of the class and not the common name.

Whale	Mammalia
Turtle	Reptilia
Newt	Amphibia
Pigeon	Aves
Sea turtle	Reptilia
Trout	Osteichthyes
Ibis	Aves
Pika	Mammalia
Stingray	Chondrichthyes
.Lamprey	Agnatha

Extras:

.Anteater	Mammalia
.Flicker	Aves

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REGIONAL GAME 7

Team 1:_____   Team 2:_____

QUARTER 4
LIGHTNING ROUND

Science: Periodic Table Knowledge

Directions: Identify the group or property described.

Name of Group 1 elements known for being highly reactive metals?   Alkali metals

Name of Group 2 elements that are also reactive metals?   Alkaline earth metals

Name of Group 17 elements known for being highly reactive nonmetals?   Halogens

Name of Group 18 elements that are inert and rarely form compounds?

Name of the elements located in the center of the periodic table?   Noble gases

Most abundant element in the universe   Transition metals

Element with the atomic number 6, known for being the basis of organic life?   Hydrogen

Element with the symbol Fe that is a key component of steel?   Carbon

Element with the symbol O that is necessary for respiration?

.Element with the atomic number 79, known for its use in jewelry?   Iron

          Oxygen

Extras:

          Gold

.Element with the atomic number 8, known as the most abundant element in the Earth's crust?

.Element with the symbol Na, commonly found in table salt?   Oxygen

          Sodium

Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 7

Extra Questions

E1.   This sit-in was one of the first sit-ins during the civil rights movement, occurring between August 19 and August 21, 1958, in Oklahoma City, Oklahoma. What was this sit-in where black schoolchildren sat at a lunch counter with their teacher demanding food, refusing to leave until they were served?

Answer: <u>Katz</u> Drug Store Sit-In

E2.   **Math Computation:** A transversal cuts across two parallel lines. If the measure of one exterior angle is 105 degrees, what is the measure, in degrees, of the alternate exterior angle?

Answer: 105

E3.   Hormones such as prolactin and oxytocin regulate this structure's function. This glandular structure in the female reproductive system is essential during pregnancy and lactation. It produces milk following childbirth, providing necessary nutrition and antibodies to the newborn. What is this organ?

Answer: Mammary gland (or breast)

E4.   This play centers around a manipulative and disillusioned woman who struggles with societal expectations and her own desire for control. The title character, trapped in a stifling marriage, wreaks havoc on those around her, leading to a tragic conclusion. Name this work by Henrik Ibsen.

Answer: *Hedda Gabler*

E5.   This art movement emerged in the early 20th century in Russia, emphasizing abstract, geometric forms and the use of industrial materials. It sought to reflect modern technology, often focusing on architecture, sculpture, and graphic design. Name this movement, associated with artists like Vladimir Tatlin and Alexander Rodchenko.

Answer: Constructivism

E6.   These periods in Earth's history are characterized by long-term drops in global temperatures, leading to the expansion of ice sheets and glaciers across continents. They have occurred multiple times, including the most recent one, which peaked around 20,000 years ago. Name these epochs of widespread glaciation.

Answer: Ice Ages

E7.   This supergroup, formed in the late 1980s, included music legends like
George Harrison, Bob Dylan, Tom Petty, Jeff Lynne, and Roy Orbison. What is
the name of this iconic band known for hits like *End of the Line* and *Handle with
Care*?

Answer: Traveling Wilburys

E8.   **Math Computation:** What is the partial sum of the arithmetic sequence
that includes all the numbers from one to 50?

Answer: 1275

E9.   This type of force acts perpendicular to the radius of a rotating object, influencing
its rotational motion. It is responsible for changing the object's angular velocity and is a
key factor in determining the torque applied to the system. Name this force that affects
objects moving in circular paths.

Answer: Tangential force

E10.   This author is known for his deep exploration of themes like alienation, identity,
and the innocence of youth. After serving in World War II, his experiences influenced his
writing, which often featured characters struggling with societal pressures. Though he
gained fame for his work, he became increasingly reclusive in later years. Name this
American author, best known for *The Catcher in the Rye*.

Answer: J.D. Salinger

OSSAA 2024-2025
REGIONAL GAME 8
QUARTER 1
TOSS-UP QUESTIONS

1. This American comedy rock duo was founded by actors Kyle Gass and Jack Black, and are the focus of a titular movie subtitled *The Pick of Destiny*. What is this duo that has hits like *Tribute* and a cover of *Baby One More Time* that was featured on the *Kung Fu Panda 4* soundtrack?

   Answer: Tenacious D

   Team 1:_____   Team 2:_____

2. This novella delves into the darkness of human nature through a journey into the Congo Free State. Narrated by Marlow, it recounts his meeting with Kurtz, a man corrupted by power and isolation. The story critiques European colonialism. Name this work by Joseph Conrad, published in 1902.

   Answer: *Heart of Darkness*

   Team 1:_____   Team 2:_____

3. **Math Computation:** Two secant lines intersect outside a circle. If the intercepted arcs from these lines measure 130 and 78 degrees, what is the measure, in degrees, of the angle formed by these secants?

   Answer: 26

   Team 1:_____   Team 2:_____

4. This American media executive, the former CEO of Discovery, was tasked with leading the merger between Discovery and Warner Brothers. Who is this CEO who has become controversial with his methods of fixing the debt problem that Warner Bros. had before the merger, such as canceling films before their release for tax breaks?

   Answer: David Zaslav

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 8
QUARTER 1
TOSS-UP QUESTIONS

5. This experiment demonstrated that atoms consist of a small, dense nucleus surrounded by mostly empty space. By observing alpha particles aimed at a thin sheet of gold, it was concluded that most passed through while a few were deflected, leading to the discovery of the atomic nucleus. Name this famous experiment by Ernest Rutherford.

   Answer: (Rutherford's) <u>Gold</u> <u>Foil</u> Experiment

   Team 1:_____   Team 2:_____

6. This agreement, reached during the 1787 Constitutional Convention, settled a debate between states by creating a bicameral legislature. It established the House of Representatives, based on population, and the Senate, with equal representation from each state. Name this agreement that shaped the U.S. legislative structure.

   Answer: The Great Compromise (Connecticut Compromise)

   Team 1:_____   Team 2:_____

7. This short story tells of a man's perilous journey through the Yukon wilderness in sub-zero temperatures. As he attempts to stay warm and survive the harsh environment, his lack of respect for nature's power leads to disastrous consequences. Name this classic work by Jack London.

   Answer: *To Build a Fire*

   Team 1:_____   Team 2:_____

8. This 1963 Supreme Court case ruled that the Sixth Amendment guarantees the right to legal counsel for defendants in criminal cases, even if they cannot afford an attorney. The case arose after a man was denied a lawyer during his trial for a felony in Florida. Name this landmark case that expanded the rights of indigent defendants.

   Answer: Gideon v. Wainwright

   Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 8
QUARTER 1
TOSS-UP QUESTIONS

9. **Math Computation:** What is the equation of the directrix for the parabola with equation: y = 1/8(x – 4)^2 - 3 [read: y equals one eighth times the quantity x minus 4 end quantity squared minus 3]? Remember, the directrix of a parabola is: y = k - 1/(4a) [read: y equals k minus one over 4a].

    Answer: y = -5

        Team 1:_____   Team 2:_____

10. This Renaissance artist excelled in painting, architecture, and poetry, but is most renowned for his extraordinary sculptures that convey intense emotion and detail. His work on the Sistine Chapel ceiling is legendary, but his true genius shines through his sculptures. Who is the creator of the iconic marble sculpture "David" and "Pietà"?

    Answer: <u>Michelangelo</u> de Lodovico Buonarroti Simoni

        Team 1:_____   Team 2:_____

11. This ancient Greek tragedy tells the story of a woman who defies the king's orders by burying her brother, an act considered treasonous. Her decision sets off a series of tragic events as she struggles between familial duty and state law. Name this play, written by Sophocles, part of the Theban Plays.

    Answer: *Antigone*

        Team 1:_____   Team 2:_____

12. **Math Computation:** What is the sum of the angles in a convex decagon, in degrees?

    Answer: 1440

        Team 1:_____   Team 2:_____

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REGIONAL GAME 8
QUARTER 1
TOSS-UP QUESTIONS

13. This musical is based on a classic American novel and follows the journey of a young boy as he travels down the Mississippi with an escaped slave. They encounter many colorful characters and face challenges of the pre-Civil War South. Name this musical, with music by Roger Miller, adapted from Mark Twain's *Adventures of Huckleberry Finn*.

    Answer: *Big River*

    Team 1:_____   **Team 2:_____**

14. This part of the brainstem controls vital functions such as breathing, heart rate, and blood pressure. Located just above the spinal cord, it also manages reflex actions like swallowing and coughing. Name this structure, crucial for autonomic bodily functions.

    Answer: Medulla oblongata

    Team 1:_____   **Team 2:_____**

15. This Union general is famous for his "March to the Sea" during the American Civil War, a campaign that used total war tactics to cripple the Confederate war effort. His capture of Atlanta in 1864 and subsequent march played a crucial role in weakening the South. Name this general known for his harsh yet effective military strategies.

    Answer: William Tecumseh <u>Sherman</u>

    Team 1:_____   **Team 2:_____**

16. This material, known for its extremely low density and high insulating properties, is often referred to as "frozen smoke" due to its translucent appearance. It is created by removing the liquid from a gel, leaving a porous, lightweight solid. Name this substance, used in applications like thermal insulation and space exploration.

    Answer: Aerogel

    Team 1:_____   **Team 2:_____**

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REGIONAL GAME 8
QUARTER 1
TOSS-UP QUESTIONS

17. This inventor and mechanical engineer made significant improvements to the steam engine, greatly increasing its efficiency and making it practical for widespread use in industry. His innovations played a key role in the Industrial Revolution, and the unit of power is named in his honor. Name this Scottish inventor.

    Answer: James <u>Watt</u>

    Team 1:_____   Team 2:_____

18. **Science Computation:** This decibel level is equal to an intensity of 1.0 x10-12 [1.0 times ten to the negative twelfth] watts per square meter. What is the decibel level for the threshold of hearing?

    Answer: 0 dB

    Team 1:_____   Team 2:_____

19. This event, occurring around 541 million years ago, marks a period in Earth's history when most major animal phyla appeared in the fossil record. It was characterized by a rapid diversification of life forms, leading to the emergence of many complex organisms, including the ancestors of modern animals. Name this evolutionary event.

    Answer: Cambrian Explosion

    Team 1:_____   Team 2:_____

20. This poet is known for her passionate and expressive verse, often exploring themes of love, social justice, and spirituality. One of her most famous works is *Sonnets from the Portuguese*, which includes the iconic line "How do I love thee? Let me count the ways." Name this Victorian-era English poet, who was married to fellow poet Robert Browning.

    Answer: <u>Elizabeth Barrett Browning</u>

    Team 1:_____   Team 2:_____

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REGIONAL GAME 8
QUARTER 2
LIGHTNING ROUND

U.S. History: "P" Terms

Directions: Given the description, name the U.S. history term or event starting with "P."

Raids targeting suspected radicals during the Red Scare.	<u>Palmer</u> Raids
Waterway connecting the Atlantic and Pacific Oceans.	Panama Canal
U.S. naval base attacked by Japanese in 1941.	Pearl Harbor
Leaked documents about U.S. involvement in Vietnam.	Pentagon Papers
Tax used to prevent African Americans from voting.	<u>Poll</u> Tax
Idea that territories decide on slavery themselves.	Popular Sovereignty
Transferring public services to private control.	Privatizing
Reform movement to address government corruption.	Progressivism
Ban on alcohol production and sale from 1920–1933.	Prohibition
.New Deal program funding large infrastructure projects.	Public Works Administration (PWA)

Extras:

.1894 railroad strike that required federal intervention.	<u>Pullman</u> Strike
.1906 law regulating the food and drug industries.	Pure Food and Drug Act

Team 1:_____   Team 2:_____

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QUARTER 2
LIGHTNING ROUND

Fine Arts: Greek Mythological Figures

Directions: Identify the Greek mythological figure from the description.

The god of the west wind, often considered the gentlest of the Anemoi.   Zephyrus
The goddess of the rainbow, acting as a messenger for the gods.

                                                                                            Iris

The mortal who opened a jar, releasing all the evils of the world.

                                                                                            Pandora

The ferryman who transports souls across the river Styx.

                                                                                            Charon

The goddess of magic and crossroads, often depicted with three faces.

                                                                                            Hecate

The Titan of memory and mother of the Muses.

                                                                                            Mnemosyne

The goddess of retribution, who punished hubris and excessive pride.

                                                                                            Nemesis

The nymph who was transformed into a laurel tree to escape Apollo.
The god of peaceful death, brother to Hypnos, the god of sleep.   Daphne

.The wife of Hades and queen of the Underworld, who spends part of the year   Thanatos
 with her mother.

                                                                                            Persephone

Extras:

.The shepherd who was loved by the moon goddess Selene and granted
 eternal sleep.

                                                                                            Endymion
.The god of healing and medicine, son of Apollo.

                                                                                            Asclepius

Team 1:_____   **Team 2:_____**

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QUARTER 2
LIGHTNING ROUND

Literature: Hans Christian Andersen Fairy Tales

Directions: Given a brief description, identify the following fairy tales written by Hans Christian Andersen

A young creature who grows up to discover its true beauty.	*The Ugly Duckling*
A girl who sacrifices everything to live on land with a prince.	*The Little Mermaid*
A tiny girl is kidnapped by a toad and faces many challenges.	*Thumbelina*
A ruler who is tricked into wearing "invisible" clothing.	*The Emperor's New Clothes*
A brave child journeys to rescue her friend from an icy queen.	*The Snow Queen*
A soldier with only one leg who overcomes many obstacles.	*The Steadfast Tin Soldier*
A young girl suffering in the cold as she sells a certain product.	*The Little Match Girl*
A bird whose beautiful song wins over a powerful ruler.	*The Nightingale*
A girl who can't stop dancing because of magical footwear.	*The Red Shoes*
.A princess proves her royalty by feeling something under many mattresses.	*The Princess and the Pea*

Extras:

.Two porcelain figures who run away from their shelf to be together.	*The Shepherdess and the Chimney Sweep*
.A shoemaker's boy with the power to summon fierce dogs.	*The Tinderbox*

Team 1:_____   Team 2:_____

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REGIONAL GAME 8
QUARTER 3
TOSS-UP QUESTIONS

21. This U.S. president, originally a vice president, became the first to ascend to the presidency due to the death of his predecessor. He is credited with advancing the annexation of Texas. Name this 10th president, whose term was marked by tensions over states' rights and a contentious relationship with Congress.

    Answer: John Tyler

    Team 1:_____   Team 2:_____

22. This poem uses a vivid metaphor to describe a weather phenomenon, comparing it to a cat that "comes on little cat feet" and "sits looking over harbor and city." The poem is brief but memorable for its imagery and simplicity. Name this poem by Carl Sandburg, often considered a classic example of modernist poetry.

    Answer: *Fog*

    Team 1:_____   Team 2:_____

23. **Math Computation:** What is the measure of each of the interior angles in a regular nonagon, in degrees?

    Answer: 140

    Team 1:_____   Team 2:_____

24. This whip-like structure allows certain cells and microorganisms to move. Found in both prokaryotic and eukaryotic cells, it rotates or undulates to propel the organism through liquid environments. Name this organelle, commonly associated with the motility of bacteria and sperm cells.

    Answer: Flagellum (or flagella)

    Team 1:_____   Team 2:_____

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REGIONAL GAME 8
QUARTER 3
TOSS-UP QUESTIONS

25. Once called the "next Spielberg" by Newsweek magazine, this American director has since had a filmography that is full of controversial titles, and is known for his use of twist endings. Who is this director, who directed beloved films like *The Sixth Sense* and *Unbreakable*?

    Answer: M. Night Shyamalan

        Team 1:_____   Team 2:_____

26. This logarithmic scale, based on the concentration of hydrogen ions in the solution, making each unit on the scale represent a tenfold difference in ion concentration. It is used to measure the acidity or basicity of aqueous solutions, typically from 0 to 14, with 7 being neutral. What is the name of this scale?

    Answer: pH scale

        Team 1:_____   Team 2:_____

27. **Math Computation:** Two tangent lines intersect outside a circle. If the major arc formed from the intersection measures 242 degrees, what is the measure, in degrees, of the angle formed by these tangents?

    Answer: 62

        Team 1:_____   Team 2:_____

28. This Italian composer, born in 1714, is known for his contributions to the development of opera seria and for his large output of operas. Some of his most notable operas include "Orlando" and "Giulio Cesare." Identify this composer, who also wrote the famous "Water Music" and "Music for the Royal Fireworks."

    Answer: George Frideric Handel

        Team 1:_____   Team 2:_____

OSSAA 2024-2025
REGIONAL GAME 8
QUARTER 3
TOSS-UP QUESTIONS

29. DNA replication involves the separation of the double-stranded helix to allow for the synthesis of complementary strands. This unwinding process is facilitated by a specific type of enzyme that breaks the hydrogen bonds between the complementary strands. Name this enzyme.

   Answer: Helicase

   Team 1:_____   Team 2:_____

30. This leader first served as the President of Brazil from 2003 to 2010. Who is this leader who, after a period out of office, was re-elected and assumed the presidency again in 2023?

   Answer: Luiz Inácio Lula da Silva

   Team 1:_____   Team 2:_____

31. This school, founded by Plato, was the first institution of higher learning in the Western world. It played a significant role in the development of Western philosophy and science. Plato founded it after the death of Socrates and it continued to operate until 529 A.D. What is this school called?

   Answer: The Academy

   Team 1:_____   Team 2:_____

32. This novel-in-verse tells the story of a young woman striving to become a poet, reflecting on issues such as gender roles, social justice, and artistic ambition in Victorian society. The protagonist navigates personal relationships while asserting her independence as an artist. Name this work written by Elizabeth Barrett Browning.

   Answer: *Aurora Leigh*

   Team 1:_____   Team 2:_____

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REGIONAL GAME 8
QUARTER 3
TOSS-UP QUESTIONS

33. Largely replacing the Richter scale, this measures the size of earthquakes by calculating the energy released during seismic events. It has replaced the Richter scale due to its greater accuracy, especially for larger quakes, and is based on factors like the seismic moment and fault slip. Name this scale used to quantify the energy of earthquakes.

    Answer: Moment magnitude scale

    Team 1:_____   **Team 2:_____**

34. This novel is set in 1960s South Carolina and follows a young girl named Lily Owens, who runs away from her abusive father and finds refuge with three African-American sisters who are beekeepers. The story explores themes of race, motherhood, and personal growth. Name this novel by Sue Monk Kidd.

    Answer: *The Secret Life of Bees*

    Team 1:_____   **Team 2:_____**

35. This series of nonviolent protests began in 1960 when four African American college students sat down at a segregated Woolworth's lunch counter in North Carolina, and politely asked for service, which was refused. What are these protests that sparked a movement that spread quickly throughout the South?

    Answer: Greensboro Sit-Ins (Accept: Greensboro Protests)

    Team 1:_____   **Team 2:_____**

36. **Math Computation:** Find all solutions to the equation: $x^2 - 18 = 63$ [x squared minus 18 equals 63].

    Answer: (x=) 9, -9 [must have both or may say plus or minus 9]

    Team 1:_____   **Team 2:_____**

OSSAA 2024-2025
REGIONAL GAME 8

QUARTER 3
TOSS-UP QUESTIONS

37. This storyline from DC Comics features a powerful adversary named Bane, who weakens Gotham's vigilante before delivering a crippling blow by breaking his back. As this title character recovers, other characters, including Jean-Paul Valley, temporarily take on the iconic mantle. Name this comic acr consisting of three story lines.

    Answer: *Batman: Knightfall (prompt for more on either Batman alone or Knightfall alone)*

    Team 1:_____   Team 2:_____

38. This work project was created under the New Deal to promote economic recovery and cultural enrichment during the Great Depression by employing artists, musicians, theater people, and writers. What is the name of this program, created in 1935, that was part of the Works Project Administration?

    Answer: Federal Art Project

    Team 1:_____   Team 2:_____

39. This term refers to music that lacks a regular metric structure, avoiding the use of a time signature or rhythmic pattern. In compositions, phrases may flow freely without being confined to measures or beats, creating a sense of unpredictability. What is this term for music that does not adhere to a defined meter?

    Answer: Ametric

    Team 1:_____   Team 2:_____

40. **Math Computation:** A flagpole casts a shadow that is 15 feet long. If a 5-foot tall fence post casts a 2 foot long shadow, how tall is the flagpole in feet?

    Answer: 37.5 feet

    Team 1:_____   Team 2:_____

**QUARTER 4
LIGHTNING ROUND**

Math: Equations of Lines

Directions: Find the equation of the line, in slope-intercept form, given the slope of the
line and one point the line goes through. {Moderator – read (4,2) as 4 comma 2.}

through (2,3), slope 5   y = 5x - 7

through (3,1), slope 4   y = 4x - 11

through (5,2), slope 6   y = 6x - 28

through (1,5), slope -3   y = -3x + 8

(8,3), slope one half   y = 1/2 x - 1

(-4,3), slope two   y = 2x + 11

(-6,5), slope three halves   y = 3/2 x + 14

through (0,-2), slope -4   y = -4x - 2

(9,-3), slope one third   y = 1/3 x - 6

.(-6,3), slope one fourth   y = 1/4 x + 9/2 (or y = 1/4 x + 4&1/2)

Extras:

                                                                                                                        y = -2/3 x - 1

.(6,-5), slope negative two thirds

                                                                                                                        y = 3/4 x + 10

.(-8,4), slope three fourths

Team 1:_____   Team 2:_____

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QUARTER 4
LIGHTNING ROUND

Science: Brightest Stars

Directions: Identify the brightest star in the following constellations.

Orion   Rigel

Carina   Canopus

Centaurus   Alpha Centauri

Crux   Acrux

Boötes   Arcturus

Lyra   Vega

Scorpius   Antares

Taurus   Aldebaran

Gemini   Pollux

.Leo   Regulus

Extras:

.Aquila   Altair

.Andromeda   Alpheratz

Team 1:_____   Team 2:_____

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QUARTER 4
LIGHTNING ROUND

Three-Name Authors

Directions: Given the initials of an author who typically goes by their full name and a work by said author. Provide the author's first, middle, and last name.

BEE (*American Psycho*)   <u>Bret Easton Ellis</u>

EEH (*The Man Without a Country*)   <u>Edward Everett Hale</u>

MHL (*Betsy-Tacy*)   <u>Maud Hart Lovelace</u>

WEH (*Invictus*)   <u>William Ernest Henley</u>

AML (*Gift from the Sea*)   <u>Anne Morrow Lindbergh</u>

RHD (*Two Years Before the Mast*)   <u>Richard Henry Dana</u>

RPW (*All the King's Men*)   <u>Robert Penn Warren</u>

JLN (*The Other Side of Dark*)   <u>Joan Lowry Nixon</u>

MHC (*Where Are the Children?*)   <u>Mary Higgins Clark</u>

.LMA (Little Women)   <u>Louisa May Alcott</u>

Extras:

.FHB (*The Secret Garden*)   <u>Frances Hodgson Burnett</u>

.PLD (*Lyrics of Lowly Life*)   <u>Paul Laurence Dunbar</u>

Team 1:_____   **Team 2:_____**

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Extra Questions

E1.   This 1989 Supreme Court case dealt with flag burning as a form of protest. The Court ruled that burning the American flag is protected under the First Amendment as a form of free speech, despite being a deeply controversial act. Name this landmark case that centered on a protest in the 1984 Republican National Convention.

Answer: Texas v. Johnson

E2.   This term describes the unique set of conditions—specific temperature and pressure—at which a substance can simultaneously exist in solid, liquid, and gas phases in thermodynamic equilibrium. It is a critical concept for understanding phase transitions. Name this point, often used in precise temperature measurements.

Answer: Triple Point

E3.   **Science computation:** Convert 20 degrees, 18 minutes, 36 seconds into a degree decimal equivalent.

Answer: 20.31

E4.   This term refers to a word formed from the initial letters of a series of words, pronounced as a single word. What is this term that is seen in examples like NASA and UNICEF?

Answer: Acronym

E5.   This 1985 Hong Kong action film has spawned a six film franchise and stars Jackie Chan, who also wrote, directed, and coordinated the stunts. What is this film about a cop who has to protect a witness from a dangerous drug dealer?

Answer: *Police Story*

E6.   **Math Computation:** An isosceles right triangle has legs of length $12\sqrt{2}$ [twelve radical two] inches. What is the exact length of the hypotenuse of the triangle?

Answer: 24

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E7.   This composer is known for operas and orchestral works that exemplify the late Romantic style. His opera "Carmen" is one of the most frequently performed operas worldwide. He also composed "L'Arlésienne" suites, which contain popular orchestral music. Identify this composer, known for the "Symphony in C."

Answer: Georges <u>Bizet</u>

E8.   This American justice served as an associate justice of the U.S. Supreme Court from 1902 to 1932 and holds the record as the oldest justice on the Supreme Court. Who is this man that created the clear and present danger test?

Answer: Oliver Wendell <u>Holmes</u>

E9.   This reproductive structure is present in conifers and contains the seeds or pollen of gymnosperms. It is typically larger and woody, protecting the seeds until maturity. Male structures are smaller and produce pollen that is dispersed by wind. What is this structure in gymnosperms that does not develop into a fruit?

Answer: Cone

E10.   In this poem, the speaker reflects on the loss of a close friend and fellow poet. He explores themes of grief, nature, and the passage of time. He finds solace in the enduring presence of nature and memory. It is considered one of the great elegies of the English language. Name this poem by Alfred Lord Tennyson.

Answer: *In Memoriam A.H.H.*