

leave light on until questions are answered

Straight A Quiz Questions  
1613 Cherokee Dr.  
Seneca, SC 29678

Show-Me Academic Challenge  
Spring 1994

Game Twelve

Round 1 - Toss Up

1P Science

Name the chemical element which has an atomic number of 82 and an atomic mass of 207.

Lead Pb

2N Math (calculation)

Tina has made grades of 88, 96, and 92 in algebra. What is the lowest grade can she make on her next test and still have an average of 90?

84

3. Social Studies

From the early stages of U.S. involvement in Vietnam until 1968, what army general was commander of U.S. forces in that theater of war?

William Westmoreland

4N Literature

What American author became popular with the 1950 collection of stories The Martian Chronicles?

Ray Bradbury

5P Fine Arts

What American composer of popular songs in the early twentieth century wrote the songs "Over There", "You're a Grand Old Flag", and "Give My Regards to Broadway"?

George M. Cohan  
Coe han

6P Social Studies

The troubled nation of Haiti has been in the news quite frequently in the last several years. Name the large island in the West Indies which contains the nation of Haiti. The Dominican Republic is also located on this island.

Hispaniola

7N Math (calculation)

Factor the expression  $X^2 - 256$ .

$(X + 16)$  times  $(X - 16)$

8. Science

Which of the major biomes on earth is primarily located in bands about 10 degrees north and south of the equator?

Deserts

9. Literature

What 1966 Truman Capote novel was based on the true story of two men who brutally murdered a family in the midwest?

In Cold Blood

10. Home Economics

What is the term given to the process of cooking in which the food is kept moist by spooning or brushing with a sauce or juice?

Basting

11. Math

What trigonometric function of an angle in a right triangle is defined as the hypotenuse of the triangle divided by the side adjacent to the angle?

Secant

12. Language Arts

If a Spanish girl speaks of her "novio", to whom is she referring?

Her Boyfriend

13. Social Studies

What future U.S. president was sent to France as a foreign minister during the administration of Thomas Jefferson where he helped to negotiate the Louisiana Purchase?

James Monroe

14. Science

Give the name for the scientific instrument which is used for cutting extremely thin sections of tissues for microscopic examination?

Microtome

15. Literature

In Greek mythology, who was the king of Corinth who was condemned to repeatedly roll a huge stone up a hill from which it always rolled back down?

Sisyphus

*captain's must buzz in in order to activate mic*

Round 2 - Toss Up/Bonus

1N Science

What is the term used in chemistry to describe a substance which can be pressed or hammered very thin without breaking?

Malleable

Bonus 1 - Math (Calculation)

- 1N What is the cube root of 1728? 12
- 2N Convert the number 36 into base 2. 100100
3. Convert the number 36 into base 16. 24
- 4N What is the radius of a circle with a circumference of 25 pi? 12.5

2N Social Studies

What South American nation owns the Juan Fernandez Islands, San Felix Islands, and San Ambrosia Island in the eastern Pacific?

Chile

Bonus 2 - Science

Name the planets of the solar system which have orbital periods of the following lengths:

- 1N 12 years - Jupiter                      2N 88 days - Mercury
- 1N 687 days - Mars                        4N 164 years - Neptune

3N Literature

In what popular work by Mark Twain do you meet the character Hank Morgan, a mechanic who experiences a fantastic journey through time?

A Connecticut Yankee in King Arthur's Court

Bonus 3 - Fine Arts

1. What is the term for the text of an opera? Libretto
- 1N As a virtuoso performer on what instrument did Vladimir Horowitz gain fame in the 20th century? Piano
- 1N As a virtuoso performer on what instrument did Jascha Heifetz gain fame in the 20th century? Violin
- What composer wrote the Dante Symphony? Franz Liszt

Math (calculation)

Factor the expression  $6X^2 + X - 1$

( $3X - 1$ ) times ( $2X + 1$ )

Bonus 4 - Literature

In which of Shakespeare's plays do you meet the following characters:

1. Orlando and Rosalind - As You Like It
2. Sebastian and Viola - Twelfth Night
3. Iago and Desdemona - Othello
4. Antonio and Shylock - The Merchant of Venice

Fine Arts

Name the American artist, known for her primitive scenes of farm and country life in New England, who did not begin painting until age 77.

Anna May "Grandma" Moses

Bonus 5 - Sports

For what NFL football teams did the following players star:

1. Dick Butkus - Chicago Bears
2. Ken Stabler - Oakland Raiders (accept L.A. Raiders)
3. Frank Gifford - New York Giants
4. Jack Ham - Pittsburgh Steelers

6. Agriculture

Baby chickens are, of course, known as chicks. What is the term given to baby turkeys?

Poults

Bonus 6 - Math

Simplify the following:

1.  $3X^2 + 26X - 9 / X + 9$  -  $3X - 1$
2.  $1/\secant X$  - Cosine X
3. Square root of 125 - 5 square roots of 5
4.  $\cosine(\pi/2 - A)$  - Sine A

Science

What is the term in geology, often confused with lava, which is given to molten rock which exists under the earth's surface?

Magma

s 7 - Social Studies

Name the specific religious denomination professed by the following U.S. presidents:

1. Jimmy Carter - Baptist
2. Richard Nixon - Quaker
3. John F. Kennedy - Roman Catholic
4. Gerald Ford - Episcopalian

8. Literature

Name the 19th century English poet who is primarily remembered for his translation into English of the Rubaiyat of Omar Khayyam.

Edward Fitzgerald

Bonus 8 - Science

Name the chemical elements which have the following atomic numbers:

- |                   |                     |
|-------------------|---------------------|
| 1. 7 - Nitrogen   | 2. 5 - Boron        |
| 3. 19 - Potassium | 4. 15 - Phosphorous |

9. Social Studies

King Edward VIII abdicated the throne of England in 1936. What was the familial relationship of Edward to the current monarch, Elizabeth II?

Uncle

Bonus 9 - Literature

Name the playwrights who created the following dramas:

1. Strange Interlude - Eugene O'Neill
2. Cat on a Hot Tin Roof - Tennessee Williams
3. The Time of Your Life - William Saroyan
4. Abe Lincoln in Illinois - Robert Sherwood

10. Math (calculation)

In a given right triangle, the side adjacent to a 60 degree angle has a length of 5. What is the length of the hypotenuse of this triangle?

10

Bonus 10 - Social Studies

What U.S. states lie on the northern borders of the following states:

1. North Carolina - Virginia
2. New Mexico - Colorado
3. Nebraska - South Dakota
4. Mississippi - Tennessee

Round 3 - Toss Up

1Q Social Studies

Name the leading U.S. fighter ace of the First World War. He later served as president of Eastern Airlines.

Eddie Rickenbacker

2N Math (calculation)

What would be the volume of a cylinder having a radius of 4 inches and a height of 10 inches?

160 pi cubic inches

3Q Literature

What twentieth century literary figure, best known as a poet, wrote the 1935 verse drama Murder in the Cathedral?

T.S. Eliot

4N Science

What is the major type of rock found in a region which is described as having Karst topography? Sinkholes and caverns are characteristic of such an area.

Limestone

5. Language Arts

Noblesse oblige is a French word used in English to refer to the responsibilities of the upper classes to society. Spell noblesse oblige.

N-O-B-L-E-S-S-E O-B-L-I-G-E

6. Math

What would be the measure of an angle in radians if it is in the second quadrant and the cosine of the angle is negative 1/2?

2 pi/3

7N Social Studies

What is the more common name for Mount Godwin Austen, the second highest mountain in the world?

K2

8. Science

In what phase of mitosis in a human cell do the chromosomes separate and move to opposite ends of the cell?

Anaphase

Literature

In Greek mythology, who was the mortal mother of the Greek god Dionysus, the god of the vine?

Semelē

10 Fine Arts

What popular Broadway musical was based on the play Anna and the King of Siam?

The King and I

11 Math (calculation)

Give the two real number solutions to the equation  $X^2 - 3X = 10$

$X = 5, - 2$

12. Science

To the nearest minute, how much earlier each night does a given star rise as seen from the same location on earth?

4 minutes

13 Home Economics

What herb, a member of the mint family, is characterized by broad, light green, oval leaves which release a spicy scent when bruised? A good source of beta-carotene, this herb is an ingredient of many tomato-based dishes, such as pizza and spaghetti sauces.

Basil

14 Literature

What famed literary character, possibly the most popular in literary history, was killed off by his author in the 1893 story The Final Problem, in which the character and his nemesis both fell over a waterfall? Public demand led to his revival.

? Rickabacka Fall

Sherlock Holmes

15 Social Studies

What U.S. evangelist, founder of the Christian Broadcasting Network, made an unsuccessful attempt to gain the Republican presidential nomination in 1988?

Pat Robertson

700 Club

Round 4 - Toss Up/Bonus

1 Literature

What American author wrote the 1842 collection of stories entitled Twice-Told Tales?

Nathaniel Hawthorne

Bonus 1 - Social Studies

Name the secretaries of state who served under the following United States presidents:

1. ~~W~~ Gerald Ford - Henry Kissinger
2. John F. Kennedy - Dean Rusk
3. Thomas Jefferson - James Madison
4. ~~N~~ Abraham Lincoln - William H. Seward

2. Math

Angle A is in the second quadrant of a Cartesian plane. What two trigonometric functions of angle A will be positive?

Sine and Cosecant

Bonus 2 - Science

+ 2

1. What element is produced by alpha decay of plutonium?

Uranium

2. What isotope of uranium is the fissionable material in a nuclear reactor?

U - 235

3. What physicist first measured the charge of an electron?

Robert Millikan

4. Give the chemical formula for the hydrocarbon octane.

C<sub>8</sub> H<sub>18</sub>

3. Science

What is the name for the set of lines in the visible part of the spectrum of atomic hydrogen?

Balmer Lines (Balmer Series)

Bonus 3 - Language Arts

Give the full meanings of the following acronyms:

1. RADAR - Radio Detection and Ranging
2. WHO - World Health Organization
3. SALT - Strategic Arms Limitation Treaty (or Talks)
4. NASA - National Aeronautics and Space Administration

4. Social Studies

In what African nation was Jonas Savimbi a guerrilla leader from the 1960's into the 1980's? He was the leader of an organization known as UNITA.

Angola



onus 4 - Health

1. What types of human cells contain axons and dendrites?

Nerve Cells (Neurons)

2. A disorder of what endocrine gland causes the disease cretinism in humans?

Thyroid

3. What are the microscopic units of the kidney called in medicine?

Nephrons

4. Name the eye disorder in which the lens becomes opaque.

Cataracts

50 Language Arts

What is the date if a Spaniard says that it is "el priméro de enéro"?

January 1

Bonus 5- Math (calculation)

Simplify the following:

1P  $1/\sin A$  - Cosecant A

2N Cotangent  $(\pi/2 - A)$  - Tangent A

3P  $3x^2 + 14x + 15 / x + 3$  -  $3x + 5$

4P  $\tan A + \tan B / 1 - \tan A \tan B$  -  $\tan (A + B)$

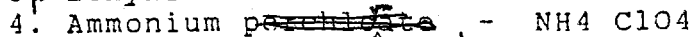
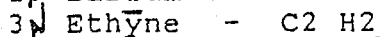
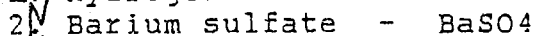
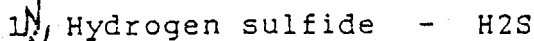
6N Math (calculation)

On a Cartesian plane, what is the distance between the points (6,5) and (2,1)?

Square root of 32 or 4 square roots of 2

Bonus 6 - Science

Give the chemical formulas for the following:



N. Sports

What member of the New York Mets major league baseball team was arrested in 1993 for throwing a large firecracker into a group of fans?

Vince Coleman

*different name for acetylene  
(ethyne rhymes with fine)*

*perchlorate*

Bonus 7 - Literature

Name the poets who wrote the following poems:

1. "The Village Blacksmith" - Henry Wadsworth Longfellow
2. "Elegy Written in a Country Churchyard" - Thomas Gray
3. "A Song for St. Cecelia's Day" - John Dryden
4. "Spring and Fall to a Young Child" - Gerard Manley Hopkins

*priest*

8. Science (calculation)

An electrical circuit has a total resistance of 8 ohms. If the current through the circuit is 2 amperes, what is the voltage of the circuit?

16 Volts

Bonus 8 - Social Studies

In what U.S. states are the following colleges and universities located:

1. Loyola Marymount University - California
2. Brown University - Rhode Island
3. Lenoir-Rhyne College - North Carolina
4. Morehead State University - Kentucky

9. Literature

What 1890 Henrik Ibsen play contains the characters Thea Elvsted and Eilert Lovberg?

Hedda Gabler

Bonus 9 - Math

Factor the following expressions:

1.  $9X^2 - 16$  [- (3X + 4) times (3X - 4)]
2.  $X^2 + 4X + 3$  [- (X + 3) times (X + 1)]
3.  $X^3 + 5X^2 + 6X$  [- X times (X + 3) times (X + 2)]
4.  $X^2 - 1$  [- (X - 1) times (X + 1)]

10. Social Studies

Who was the first Tudor king of England? He defeated Richard III at Bosworth Field in 1485.

Henry VII

Bonus 10 - Literature

In what works of literature do you meet the following:

1. Jean Valjean - Les Miserables
2. Simon Legree - Uncle Tom's Cabin
3. Jabez Stone - The Devil and Daniel Webster
4. Dr. Pangloss - Candide

Replacement Questions - Round 12

Toss Up

Science

Assuming everything else is normal, how many chromosomes are in each cell of an individual who suffers from Down's Syndrome?

47

Math

What would be the slope of a line having the equation  $3X - 4Y = 15$  ?

3/4

Social Studies

Name the three U.S. states which lie on the southern border of the state of Tennessee.

Mississippi, Alabama, Georgia

Literature

Name the Thane of Fife in Shakespeare's Macbeth who eventually kills the title character.

Macduff

Fine Arts

Name the famous American artist who created the work Campbell's Soup Can With Peeling Label. He was a leader of the pop art movement in the mid-twentieth century.

Andy Warhol

Language

An archaeologist is a scientist who researches ancient civilizations. Spell archaeologist.

A-R-C-H-A-E-O-L-O-G-I-S-T

Misc-Sports

In tennis, what is the minimum number of points which a player must win to win a set?

24

Bonus

Science

Identify the following subatomic particles:

1. An electrically neutral particle with large mass - Neutron
2. A negatively charged particle with very low mass - Electron
3. Antiparticle of an electron - Positron
4. Positively charged particle with 1836 times the mass of an electron - Proton

### Math (calculation)

Answer the following in Roman numerals:

1. VII times VIII - LVI
2. LXV divided by V - XIII
3. XXVII plus XVII - XLIV
4. CCLXXXIV minus CXVII - CLXVII

### Social Studies

Name the years in which the following events occurred:

1. Germany invaded Poland to begin the Second World War - 1939
2. The Treaty of Versailles was signed - 1919
3. Napoleon was defeated at Waterloo - 1815
4. A hurricane killed over 6,000 people in Galveston, Texas - 1900

### Literature

Identify the following figures from Greek mythology:

1. God of wine - Dionysus
2. King of Sparta and husband of Helen - Menelaus
3. Father of the Titans - Uranus
4. Nymph changed to reeds by Pan - Syrinx

### Fine Arts

Name the artists who created the following works:

1. Sistine Madonna - Raphael
2. The Tempest - Giorgione
3. Nighthawks - Edward Hopper
4. Prima Ballerina - Edgar Degas

### Language

Spell the following terms:

1. Assassination - A-S-S-A-S-S-I-N-A-T-I-O-N
2. Hygienic - H-Y-G-I-E-N-I-C
3. Temporarily - T-E-M-P-O-R-A-R-I-L-Y
4. Mayonnaise - M-A-Y-O-N-N-A-I-S-E

### Misc-Home Economics

Give the numbers for the following:

1. Number of fluid ounces in one gallon - 128
2. The number of teaspoons in one fluid ounce - 6
3. Number of quarts in a bushel - 32
4. Number of quarts in a magnum - 2