

Straight A Quiz Questions
1613 Cherokee Dr.
Seneca, SC 29672

Show-Me Academic Challenge
Spring 1995

Game Five

Round 1 - Toss Up

1. Science

How many protons would be found in one molecule of water?

10

2. Social Studies

What English monarch was beheaded in 1649 after the defeat of his forces by the Puritans in the English Civil War?

Charles I

3. Math (Calculation)

Find the surface area of a regular rectangular solid measuring 10 inches by 9 inches by 4 inches.

332 Square Inches

4. Literature

In what Charles Dickens novel do you meet the character Bill Sikes and his "fancy woman" Nancy?

Oliver Twist

5. Fine Arts

Name the Austrian composer who wrote the 1908 song cycle entitled The Song of the Earth.

*Mahler, because he's Gustav Mahler
the only turn-of-the-century Austrian*

6. Social Studies

Name the famous English political thinker of the Age of Enlightenment who wrote the influential Essay Concerning Human Understanding.

John/Locke

7. Math (calculation)

What is the sum of the interior angles of a hexagon?

720 Degrees

8. Science

Give the chemical formula for the hydrocarbon heptane.

C7 H16

9. Literature

What U.S. author, a spokesman for the "Beat Generation" of the 1950's, wrote the novels The Dharma Bums and On the Road?

Dean Moriarty Jack Kerouac
Neal Cassidy

10. Home Economics

What is the term for a cooking utensil consisting of two saucepans fitting into each other so that the contents of the upper pan can be cooked by heating water in the lower pan?

Double ~~/~~ Boiler

11. Math (calculation)

Solve the following equation for X and state your answer as a mixed numeral in lowest terms: $6X + 5 = 3X - 11$

X = - 5 1/3

12. Language Arts

Euthanasia, or mercy killing, has been very controversial in the past several years. Spell euthanasia.

E-U-T-H-A-~~N~~-A-S-I-A

13. Social Studies

Under the jurisdiction of what nation would you be if you were visiting the Marquesas Islands in the South Pacific?

~~France~~

14. Literature

Name the trumpeter of the sea in classical mythology who was usually depicted using a large conch shell as a horn.

~~Triton~~

15. Science

Name the Austrian monk of the nineteenth century who pioneered the science of genetics with his classic experiments with pea plants.

~~Gregor Mendel~~

Round 2 - Toss Up/Bonus

1. Science

Moving outward from the sun, what is the seventh planet?

~~Uranus~~

Bonus 1 - Math (calculation)

Answer the following:

1. What is the cosecant of $\pi/4$ radians?

~~Square root of 2~~

2. What is an angle of $\pi/5$ in degrees?

~~144 degrees~~ $36 \times \frac{\pi}{5} = 36^\circ$

3. Simplify square root of 108.

~~6 square roots of 3~~

4. Simplify $16X^2 + 30X - 25 / 2X + 5$

~~8X + 5~~

2. Social Studies

What former U.S. president ran as a third party candidate in 1912 on the so-called "Bull Moose Party" ticket?

~~Theodore Roosevelt~~

Bonus 2 - Science

Identify the following biological terms:

1. Name given to a rod-shaped bacteria - Bacillus

2. First plant hormone to be discovered - Auxin

3. Chambers of the human heart to pump blood - ~~Ventricles~~

4. General term for all flowering plants - ~~Angiosperms~~

3. Literature

In what major work of nineteenth century American literature do you meet the characters George Shelby and Augustine St. Claire? This work had great historical significance.

Uncle Tom's Cabin

Bonus 3 - Fine Arts

Name the artist who created the following works:

1. Impression, Sunrise - Claude Monet

2. American Gothic - Grant Wood

3. The School of Athens - Raphael

4. The Green Violinist - Marc Chagall

4. Math

Solve the following equation for X and state your answer as a mixed numeral in lowest terms: $8X + 8 = 4X + 22$

$$X = 3 \frac{1}{2}$$

Bonus 4 - Literature

Name the U.S. states which provide the settings for the following literary works:

1. East of Eden - California
2. The Last of the Mohicans - New York
3. My Antonia - Nebraska
4. The Yearling - Florida

5. Health

What is the term in anatomy given to the small functional units of the human kidney? Each unit contains a glomerulus and a Bowman's capsule.

Nephron

Bonus 5 - Social Studies

Name the political parties of which the following U.S. presidents were members during their terms in office:

1. Benjamin Harrison - Republican
2. Millard Fillmore - Whig
3. Thomas Jefferson - Democratic-Republican
4. George Washington - Federalist

6. Language Arts

Potpourri is a French term used in English to refer to a mixture of various things. Spell potpourri.

P-O-T-P-O-U-R-R-I

Bonus 6 - Sports

Give the nationalities of the following women tennis stars:

1. Arantxa Sanchez-Vicario - Spanish
2. Mary Joe Fernandez - American
3. Gabriela Sabatini - Argentine
4. Jana Novotna - Czech

7. Social Studies

What modern European nation contains the provinces of East and West Flanders?

Belgium

Bonus 7 - Math (calculation)

Find the square roots of the following numbers:

- | | |
|-------------|----------------|
| 1. 225 - 15 | 3. 841 - 29 |
| 2. 441 - 21 | 4. 11025 - 105 |

8. Science (calculation)

A certain electrical circuit is connected to a 120 V wall socket. The current is measured and is found to be 2.4 amperes. What is the resistance of the circuit?

50 ohms

Bonus 8 - Literature

Identify the following figures from Greek mythology:

1. The hero who slew Medusa - Perseus
2. The wife of Priam - Hecuba
3. The lover of Hero - Leander
4. The mother of Hermes - Maia

9. Math (calculation)

On a Cartesian plane, what is the distance between the points (3,2) and (7,5)?

5 units

Bonus 9 - Social Studies

List the four original cabinet members in the presidential administration of George Washington (their positions are not needed).

Thomas Jefferson, Alexander Hamilton, Henry Knox, Edmund Randolph
State Treasury War Att. Gen.

10. Literature

What modern American author and Nobel Prize-winner wrote the novels Humboldt's Gift and Seize the Day?

Saul Bellow

Bonus 10 - Science

Identify the following botanical terms:

1. Tissue to carry water in plants - Xylem
2. Outer protective layer of bark - Cork
3. Stalk connecting a leaf to a stem - Petiole
4. Openings in bark to allow air to enter - Lenticels

Round 3 - Toss Up

1. Social Studies

In the 103rd Congress which ended in 1994, what conservative North Carolina senator was the ranking Republican on the Senate Foreign Relations Committee?

Jesse Helms

2. Math (calculation)

Find the surface area of a regular rectangular solid measuring 3 inches by 4 inches by 8 inches.

136 square inches

3. Literature

What controversial British author of the early twentieth century wrote the novels The White Peacock, Women in Love, and The Plumed Serpent?

D.H. Lawrence

4. Science

What characteristic property of minerals, used as an aid in their identification, is exemplified by the terms glassy, metallic, dull, pearly, and sticky?

Luster

5. Language Arts

For how many years has an institution been in existence if it is celebrating its quincentennial?

500

6. Math (calculation)

The sum of two numbers is 52 and their difference is 10. Find these two numbers.

21 and 31

7. Social Studies

Name the Cambodian Communist group which was overthrown by a Vietnamese-backed faction in 1978. These groups are still in violent opposition today.

Khmer Rouge

8. Science

What American biologist discovered the processes which occur in the dark reactions of photosynthesis in plants? This chemical cycle now bears his name.

Melvin Calvin

9. Literature

Name the Norwegian author, considered a pioneer in feminist writings, who created the famous works A Doll's House and Hedda Gabler.

Henrik Ibsen

10. Fine Arts

What Russian composer and conductor of the late nineteenth century wrote the popular works "Song of India" and "Flight of the Bumblebee?"

Nikolai Rimsky-Korsakov

11. Science

What is the term in chemistry given to an element's attraction for electrons? This measures how easily an electron can be pulled off an atom of this element to create a positive ion.

... tendency to give off electron affinity Electronegativity

12. Home Economics

Name the semi-firm Dutch cheese which is molded into a ball and covered with a thin wax rind. It is named for the town near Amsterdam where it was first made.

Edam

13. Math

Common logarithms use 10 as a base. What is the term for the decimal portion of a common logarithm?

Mantissa

14. Literature

In part II of Gulliver's Travels, what land does Gulliver visit in which he is dwarfed by 60-foot tall giants?

Brobbingnag

15. Social Studies

As of 1994, the seven largest banks in the world, when ranked according to their assets, were located in one country. What was this country?

Japan

Round 4 - Toss Up/Bonus

1. Literature

What New England author and minister of the eighteenth century wrote the famous sermon "Sinners in the Hands of an Angry God?"

Jonathan Edwards

Bonus 1 - Social Studies

Name the years in which the following events occurred:

1. The Bill of Rights was ratified - 1791
2. The U.S. Civil War began - 1861
3. The Brown vs. Board of Education decision was handed down - 1954
4. The Missouri Compromise was passed - 1820

1821 statehood

2. Math (calculation)

What is the perimeter of a rectangular room which has one side of length 13 feet and has an area of 195 square feet?

56 Feet

Bonus 2 - Science

Name the astronomical constellations which contain the following:

1. The nearest spiral galaxy to our own - Andromeda
2. The Big Dipper - Ursa Major
3. The North Star, Polaris - Ursa Minor
4. The nearest star to the sun - Centaurus

3. Science

What is the term in chemistry and physics for the unit which is defined as $1/12$ the mass of a nucleus of carbon-12?

Dalton (or Atomic Mass Unit)

Bonus 3 - Language Arts

Give the meanings of the following Greek roots:

- | | |
|------------------|------------------|
| 1. Therm - Heat | 3. Pod - Foot |
| 2. Pseud - False | 4. Odont - Tooth |

4. Social Studies

In what U.S. state did Jim Florio serve as governor from 1990 to 1994 when he was defeated by Christine Todd Whitman?

New Jersey

Bonus 4 - Sports

Reggie Jackson
"Mr. October"

! (batter)

Name the sports personalities described by the following:

1. The career strikeout leader in major league baseball - Nolan Ryan (pitcher)
2. The Canadian sprinter expelled from the 1988 Olympics after testing positive for steroid use - Ben Jonson
3. The tennis star who won five consecutive Wimbledon titles in the 1970's - Bjorn Borg
4. The first man to jump a distance of over 29 feet - Bob Beamon

5. Fine Arts

Name the American composer of popular songs who wrote the 1924 work "Give My Regards to Broadway."

George M. Cohan

Bonus 5 - Math (calculation)

Factor the following expressions:

1. $3X^2 + X - 10$ - $(3X - 5)$ times $(X + 2)$
2. $24X^2 + 26X - 5$ - $(4X + 5)$ times $(6X - 1)$
3. $15X^2 - 8X - 63$ - $(5X + 9)$ times $(3X - 7)$
4. $X^3 + 24X^2 - X - 2$ - $(X + 1)$ times $(X + 2)$ times $(X - 1)$

6. Math

What property of a rectangle can be found by adding the length and width and multiplying by 2?

Perimeter

Bonus 6 - Science

Give the chemical formulas for the following compounds:

- | | |
|-----------------------------|------------------------------|
| 1. Ammonia - NH_3 | 3. Hydrogen Sulfide - H_2S |
| 2. Hydrogen Cyanide - HCN | 4. Methanamine - CH_3NH_2 |

7. Agriculture

Name the breed of large black-and-white dairy cattle which originated in the Netherlands and northern Germany and is known for yielding large quantities of milk relatively low in fat.

Holstein

Bonus 7 - Literature

Name the poets who wrote the following poems:

1. "Daffodils" - William Wordsworth
2. "Thanatopsis" - William Cullen Bryant
3. "To a Mouse" - Robert Burns
4. "The Forsaken Merman" - Matthew Arnold

8. Science

Name the only element on the periodic table which has a name beginning with the letter V. It is element number 23.

Vanadium

Bonus 8 - Social Studies

Name the U.S. states which contain the following cities:

1. Hampton, Portsmouth, Roanoke - Virginia
2. Natchez, Hattiesburg, Biloxi - Mississippi
3. Nogales, Prescott, Kingman - Arizona
4. Medford, Astoria, Klamath Falls - Oregon

9. Literature

Name the 1920 drama by Eugene O'Neill which concerns the romantic dreamer Robert Mayo.

Beyond the Horizon

Bonus 9 - Math (calculation)

Answer the following:

1. What is the tangent of a 30 degree angle? $1 / \text{square root of } 3$
2. Find the square root of 529. 23
3. Find the cube root of 3375. 15
4. 28.5 is 30 percent of what larger number? 95

10. Social Studies

Name the Soviet cosmonaut who became in 1961 the first man into space and the first man to orbit the earth.

Yuri Gagarin

Bonus 10 - Literature

First to walk in space Alexei Leonov

Name the literary works in which you meet the following characters:

1. Phileas Fogg - Around the World in Eighty Days
2. Simon Legree - Uncle Tom's Cabin
3. Ezra Manon - Mourning Becomes Electra
4. Basil Ransom - The Bostonians

Replacement Questions - Game 5

Toss Up

Science

What is the term in biology given to the specialized study of tissues?

Histology

Math (calculation)

What is the radian measure of an angle of $5\pi/9$ radians?

100 Degrees

Social Studies

Name the country which controls the Marquesas Islands in the south Pacific.

France

Literature

What American author wrote a satirical account of a cruise to the Mediterranean in the 1869 work The Innocents Abroad?

Mark Twain

Fine Arts

Name the Italian composer who wrote The Four Seasons concerto.

Antonio Vivaldi

"Il prete rosso"

Language Arts

A peccadillo is a minor crime or slight fault. Spell peccadillo.

P-E-C-C-A-D-I-L-L-O

Sports (Misc)

Name the wide receiver for the University of Michigan who won the 1991 Heisman Trophy in college football. He played for the Washington Redskins of the NFL but was recently drafted by Jacksonville.

Desmond Howard

Bonus

Science

Give the chemical formulas for the following compounds:

1. Aluminum Oxide - Al_2O_3

3. Magnesium Silicate - $MgSiO_3$

2. Propane - C_3H_8

4. Octene - C_8H_{16}

Math (calculation)

Convert the following numbers to Roman numerals:

- | | |
|-----------------|--------------------|
| 1. 87 - LXXXVII | 3. 661 - DCLXI |
| 2. 145 - CXLV | 4. 1932 - MCMXXXII |

Social Studies

Name the home states of the following U.S. senators:

1. Tom Harkin - Iowa
2. John Glenn - Ohio
3. Joseph Biden - Delaware
4. Fritz Hollings - South Carolina

Literature

Name the American authors who wrote the following novels:

1. Of Mice and Men - John Steinbeck
2. Main Street - Sinclair Lewis
3. Fahrenheit 451 - Ray Bradbury
4. The Magnificent Ambersons - Booth Tarkington

Fine Arts

Name the original nationalities of the following composers:

1. Johann Sebastian Bach - German
2. Joseph Haydn - Austrian
3. Ralph Vaughn Williams - English
4. Bela Bartok - Hungarian

Language

Give the proper terms for groups of the following animals:

1. Lions - Pride
2. Hens - Brood
3. Seals - Pod
4. Gorillas - Band

Sports (Misc)

Name the major league baseball teams for which the following players competed during their careers:

1. Ernie Banks - Chicago Cubs
2. Jim Palmer - Baltimore Orioles
3. Johnny Bench - Cincinnati Reds
4. Roberto Clemente - Pittsburgh Pirates

"Mister Cub"

• Math

Factor the following expressions:

1. $X^2 + 2X - 15$ - $(X - 3)$ times $(X + 5)$
2. $3X^2 - 23X + 40$ - $(3X - 8)$ times $(X - 5)$
3. $8X^2 + 10X - 63$ - $(4X - 9)$ times $(2X + 7)$
4. $3X^3 - 4X^2 - 15X$ - X times $(3X + 5)$ times $(X - 3)$

Social Studies

Name the Canadian provinces which contain the following pairs of cities:

1. Churchill and Winnipeg - Manitoba
2. Vancouver and Prince George - British Columbia
3. Yarmouth and Halifax - Nova Scotia
4. Calgary and Medicine Hat - Alberta

Literature

Name the authors of the following works:

1. Main Street - Sinclair Lewis
2. The Return of the Native - Thomas Hardy
3. The Time Machine - H.G. Wells
4. Emma - Jane Austen

Fine Arts

Name the composers of the following works:

1. The Carnival of the Animals - Camille Saint-Saens
2. Alpine Symphony - Richard Strauss
3. Spanish Rhapsody - Maurice Ravel
4. Hebrides Symphony - Felix Mendelssohn
Hebrides Scottish Symphony

Language Arts

Give the Spanish terms for the following:

- | | |
|-----------------|------------------|
| 1. Milk - Leche | 3. House - Casa |
| 2. Book - Libro | 4. Green - Verde |

Health (Misc)

Give the technical names for the following human bones:

- | | |
|----------------------------|------------------------|
| 1. Shoulderblade - Scapula | 3. Upper Leg - Femur |
| 2. Collarbone - Clavicle | 4. Upper Jaw - Maxilla |