

Straight A Quiz Questions  
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Show-Me Academic Challenge  
Spring 1994

Game Seven

Round 1 - Toss Up

Poorly done, too many answers!  
Planck

① Science

Name the famous physicist of the early 20th century who is credited with developing the modern quantum theory of matter.

Neils Bohr

2. Social Studies

Name the largest naval battle of the First World War. It was basically a draw between the British and German fleets.

- they both lost about equal # of craft, but since Britain had more to begin with, Britain came out a bit ahead

Battle of Jutland

3. Math (calculation)

Name the three consecutive odd integers whose sum is 63.

19, 21, 23

4. Literature

Name the American author of the 1936 novel Absalom, Absalom!.

William Faulkner

5. Fine Arts

What is the term given to a painting of inanimate subject matter, such as fruit, bowls, or flowers?

Still Life

6. Social Studies

In psychology, what is the term given to the disorder when a person is unable to resist the impulse to steal?

Kleptomania

7. Math (calculation)

A suit normally sells for \$240.00. At this price the store makes a profit of \$80.00. If the suit is reduced in price by 25% in a sale, how much profit will the store be making at the new price?

\$20.00

. Science

The stamen is the male reproductive structure of a flower. Give the name of the structure at the top of a stamen in which pollen is usually produced.

Anther

. Literature

During the Trojan War in Greek mythology, what Trojan fired the arrow which struck Achilles in his vulnerable heel and killed him?

Paris

. Agriculture

Name the most common breed of dairy cow in the United States. Over % of the dairy cows in the country are of this breed.

Holstein (Holstein-Freisen)

. Math - Calculation

Give both the sine and the cosine of an angle of 270 degrees.

Sine = - 1, Cosine = 0

1. Language Arts

What is the term in grammar given to words such as "yes," "no," and "oh" when they are individually placed in a piece of writing and do not function as a part of speech in a sentence?

Interjections

3. Social Studies

Name any two of the three South American nations which share a border with both Brazil and Argentina.

Bolivia, Paraguay, Uruguay

4. Science

An alpha particle is a common form of radioactive emission. How many protons and how many neutrons compose an alpha particle?

2 Protons, 2 Neutrons

5. Literature

Name the American playwright who wrote the dramas Winless Victory, Key Largo, and Winterset.

Maxwell Anderson

Sacco-Vanzetti

Round 2 - Toss Up/Bonus

1. Science

The eccentricity of a planet's orbit is a measure of how much the orbit differs from a circle. Which of the nine major planets of the solar system has the most eccentric orbit?

Pluto

Bonus 1 - Math (calculation)

1. What is the square of the sine of a 60 degree angle?

$3/4$  or .75

2. What is the measure of an angle in degrees if it has a radian measure of  $\pi/12$ ?

15 degrees

3. What is 7 factorial divided by 4 factorial?

210

4. Give the value of e to four decimal places.

2.7182

2. Social Studies

What U.S. political party nominated Henry Clay for president in 1844?

Whig

Bonus 2 - Science

Give the proper names for the studies of the following subjects:

1. Insects - Entomology
2. Tissues - Histology
3. Fossils - Paleontology
4. Fish - Ichthyology

3. Literature

Name the flamboyant and controversial author who wrote the 1891 novel The Picture of Dorian Gray.

Oscar Wilde

Bonus 3 - Fine Arts

Name the composers of the following ballets:

1. Appalachian Spring - Aaron Copland
2. Swan Lake - P.I. Tchaikovsky
3. Petrushka - Igor Stravinsky
4. The Miraculous Mandarin - Bela Bartok

4. Math (calculation)

What is  $4X$  if  $3X - 5 = X + 8$  ?

26

Bonus 4 - Literature

Name the muses of Greek mythology who were considered to preside over the following:

1. Epic Poetry - Calliope
2. Astronomy - Urania
3. Love Poetry - Erato
4. Dance - Terpsichore  
*Ter' sic*

5. Health

Name the drug, a derivative of opium, which is used in prescription cough medicines and as a pain reliever?

Codeine

Bonus 5 - Social Studies

Name the capitals of the following countries:

1. Dominican Republic - Santo Domingo
2. Venezuela - Caracas
3. Nigeria - Lagos (*Abuja*)
4. Rumania - Bucharest

6. Fine Arts

Name the 17th century artist from *Painted* Delft, Holland who created the works The Kitchen Maid and Young Woman with a Water Jar. *View of Delft*

Jan Vermeer

Bonus 6 - Sports

Name the head coaches (as of the 1993 season) of the following NFL football teams:

1. Dallas Cowboys - Jimmy Johnson
2. Miami Dolphins - Don Shula
3. Buffalo Bills - Marv Levy
4. New England Patriots - Bill Parcells

7. Social Studies

The Berlin Wall was destroyed during the administration of George Bush. What U.S. president was in office when this wall was erected?

1989

John F. Kennedy

Bonus 7 - Math (calculation)

Convert the following degree measurements to radians:

1. 120 degrees -  $2\pi/3$  *2 pi over 3*
2. 170 degrees -  $17\pi/18$
3. 315 degrees -  $7\pi/4$
4. 54 degrees -  $3\pi/10$

8. Science

The zenith is the point in the sky directly above the observer. What is the term given to the point directly below the observer, opposite from the zenith?

Nadir

Bonus 8 - Social Studies

Name the states in which the following U.S. presidents were born:

1. John Adams - Massachusetts
2. Ulysses S. Grant - Ohio
3. James Buchanan - Pennsylvania
4. Millard Fillmore - New York

9. Math (calculation)

*cube*  
 $\frac{\quad}{3}$  <sup>2</sup>

Divide the expression  $2x^3 + 2x^2 - x - 1$  by  $x + 1$  and give the result.

$$2x^2 - 1$$

Bonus 9 - Literature

Name the novels in which you meet the following characters:

1. Paul Morel - Sons and Lovers
2. Harry Haller - Steppenwolf
3. Hetty Sorrel - Adam Bede
4. Chadwick Newsome - The Ambassadors

10. Literature

Which of Shakespeare's plays, subtitled What You Will, contains the characters Sebastian and Viola who are separated after a shipwreck?

Twelfth Night

Bonus 10 - Science

Name the scientists who discovered the following:

1. First polio vaccine - Jonas Salk
2. Penicillin - Alexander Fleming
3. Radioactivity - Henri Becquerel
4. Electromagnetic Theory of Light - James Maxwell

Round 3 - Toss Up

1. Social Studies

Based upon population, what is the largest city in the state of Tennessee?

Memphis

2. Math (calculation)

Factor the expression  $2X^2 + 9X + 4$ .

*factorial*  
(2X + 1) times (X + 4)

3. Literature

Name the creature of Greek mythology which sprang from the blood of the slain Medusa.

Pegasus

4. Science

What is the term in biology for the polymer of glucose which forms the majority of plant cell walls?

Cellulose

5. Language Arts

What Latin term, literally meaning "another self," is used in English to refer to someone's extremely close friend or to a completely distinct side of one's personality?

Alter Ego

6. Math (calculation)

Solve the following simultaneous equations for X and Y:

$$X + 2Y = 8, \quad X + Y = 5$$

$$X = 2, \quad Y = 3$$

7. Social Studies

What British military officer, the last Viceroy of India, was assassinated in 1979 by the Irish Republican Army when they planted a bomb aboard his yacht?

Louis Mountbatten

8. Science

What German astronomer and mathematician of the early 17th century was the first to discover that planets travel in elliptical orbits around the sun?

Johannes Kepler

9. Literature

Name the nineteenth century American author who wrote the books An Old-Fashioned Girl, Eight Cousins, and Little Women.

Louisa May Alcott

10. Fine Arts

What popular Rogers and Hammerstein musical was based upon the literary work Green Grow the Lilacs? This musical was also made into a successful film.

Oklahoma!

11. Math (calculation)

Find the square root of 1225.

35

12. Science

The Earth's moon ranks fifth in size among the moons of the solar system. Name the largest moon. It orbits the planet Saturn.

Titan

13. Driver's Education

U.S. traffic signs have been standardized to different shapes. What type of shape is a standard hazard-warning sign?

Diamond

14. Literature

Name the Greek dramatist of the fifth century B.C. who wrote of the queen of Troy in his tragedy Hecuba.

Euripedes

15. Social Studies

James Baker is most famous for his position as Secretary of State under President Bush, but what cabinet position did Baker hold in the second administration of Ronald Reagan?

Secretary of the Treasury

Round 4 - Toss Up/Bonus

1. Literature

Name the popular author who wrote the story "The Ugly Duckling."

Hans Christian Andersen

Bonus 1 - Social Studies

From what U.S. states, then British colonies, were the following signers of the Declaration of Independence:

1. Alexander Hamilton - New York
2. James McHenry - Maryland
3. Robert Morris - Pennsylvania
4. William Few - Georgia

*Ft. McHenry! Star-Spangled Banner*

2. Math (calculation)

Find the numerical average of the following five numbers: 101, 105, 107, 111, and 115.

Ave = 107.8

Bonus 2 - Science

List the four chemical elements which begin with the letter i.

Iodine, Iridium, Indium, Iron

3. Social Studies

The small island nation of Trinidad and Tobago lies just off the coast of what South American nation?

Venezuela

Bonus 3 - Language Arts

Give the meanings of the following Latin roots:

- . Mal - Bad
- . Tact - Touch
- . Gest - Carry
- . Lapi - Stone

Science

Find the speed, to the nearest meter per second, of a brick four seconds after it has been dropped from a high building. Ignore air resistance.

39 meters per second

Bonus 4 - Health

1. What is the largest bone in the human body?

Femur (Thigh)

2. What is the term for the long extension of a neuron which transmits information?

Axon

3. What is the term for the short extensions of a neuron which ~~send out~~ <sup>receive</sup> information?

Dendrites

4. What is the term for the uppermost portion of the small intestine?

Duodenum

5. Language Arts

What is the term in grammar given to a sentence which consists of one or more dependent clauses and two or more independent clauses?

Compound-Complex Sentence

Bonus 5 - Math (calculation)

Write down the following list of numbers: 18, 16, 16, 14, 12, 10, 5.  
Give the following statistical quantities from this list:

1. The mean - 13
2. The median - 14
3. The mode - 16
4. The range - 13

6. Math (calculation)

In terms of pi cubic inches, what would be the volume of a cone having a base of radius 3 inches and a height of 5 inches?

15 pi cubic inches

Bonus 6 - Science

Give the Celsius temperatures which correspond to the following Fahrenheit temperatures:

1. 32 degrees F - 0 degrees C
2. 212 degrees F - 100 degrees C
3. - 40 degrees F - - 40 degrees C
4. 68 degrees F - 20 degrees C

7. Health

Which of the human endocrine glands is known as the "master gland" since it helps control other glands in the body?

Pituitary Gland

Bonus 7 - Literature

Name the American authors who created the following works:

1. The Executioner's Song - Norman Mailer
2. The Turn of the Screw - Henry James
3. The Winds of War - Herman Wouk
4. The Natural - Bernard Malamud

8. Science

An object with a mass of 2 kilograms is moving at a velocity of 3 meters per second. Find the kinetic energy in joules which the object possesses.

9 Joules

Bonus 8 - Social Studies

Name the U.S. presidents who were inaugurated into office for the first time in the following years:

1. 1901 - Theodore Roosevelt
2. 1877 - Rutherford B. Hayes
3. 1921 - Warren Harding
4. 1837 - Martin Van Buren "Little Magician"

9. Literature

What ancient Greek author created the famous comedy The Frogs, considered to have been written in 405 B.C..

Aristophanes

Bonus 9 - Math

1. Give the number 87 in Roman numerals. LXXXVII
2. 17 is 20% of what larger number? 85
3. What is the square root of 576? 24
4. What is the cube root of 512? 8

10. Social Studies

What is the term for the branch of philosophy which investigates the origin, structure, and validity of knowledge?

Epistemology

Bonus 10 - Literature

Name the English poets who wrote the following:

1. "My Last Duchess" - Robert Browning
2. "Ash Wednesday" - T.S. Eliot
3. "Rikki-Tiki-Tavi" - Rudyard Kipling
4. "Ode to a Nightingale" - John Keats

Replacement Questions - Round 7

Toss Up

Science

Name the chemical element which comprises approximately 47 % of the earth's crust.

*correct*  
Oxygen

Math (calculation)

Give the first derivative of the expression  $3X^3 - 2X^2 + 7X - 2$

$$9X^2 - 4X + 7$$

Social Studies

What U.S. naval officer became the first person to fly over both the north and south poles in the early twentieth century?

Richard Byrd

Literature

Name the British poet who wrote the poem "Ode to a Nightingale."

John Keats

Fine Arts

Name the Russian composer of the popular ballet Swan Lake.

P.I. Tchaikovsky

Language

The French term "de rigueur" means in good taste or according to proper etiquette. Spell de rigueur.

D-E R-I-G-U-E-U-R

Misc-Sports

Name the last player in major league baseball to have a batting average over .400 for a full season. He accomplished this feat in 1941.

Ted Williams

Bonus

Science

Name the geologic eras in which the following periods are a part:

- |             |   |          |             |   |           |
|-------------|---|----------|-------------|---|-----------|
| 1. Jurassic | - | Mesozoic | 2. Devonian | - | Paleozoic |
| 3. Tertiary | - | Cenozoic | 4. Silurian | - | Paleozoic |

### Math (calculation)

Convert the following numbers to base 16:

- |       |   |    |       |   |    |
|-------|---|----|-------|---|----|
| 1. 17 | - | 11 | 2. 22 | - | 16 |
| 3. 32 | - | 20 | 4. 84 | - | 54 |

### Social Studies

Name the men who became U.S. presidents in the following years:

1. 1850 - Millard Fillmore
2. 1829 - Andrew Jackson
3. 1897 - William McKinley
4. 1909 - William Howard Taft

### Literature

Name the poets who wrote the following poems:

- Ulane*
1. "Ulalume" - Edgar Allen Poe
  2. "The Road Not Taken" - Robert Frost
  3. "Journey of the Magi" - T.S. Elliot
  4. "Felix Randal" - Gerard Manley Hopkins

### Fine Arts

Give the original nationalities of the following composers:

1. Claude Debussy - French
2. Anton Dvorak - Czech
3. Joseph Haydn - Austrian
4. Ludwig von Beethoven - German

### Language

Give the meanings of the following Greek roots:

1. Ortho - Straight (or correct)
2. Anthrop - Man
3. Dendro - Tree
4. Soph - Wise

### Misc-Health

Name the body organs which perform the following functions:

1. Connects the mouth to the stomach - Esophagus
2. Covers the trachea during swallowing - Epiglottis
3. Produces Progesterone - Ovaries
4. Produces prolactin - Pituitary Gland