

Straight A Quiz Questions
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Show-Me Academic Challenge
Spring 1995

Game One

Round 1 - Toss Up

✓ 1. Science

What term in biology is used to describe the specific study of freshwater environments?

Limnology

✓ 2. Social Studies

What Roman emperor was poisoned in 54 A.D., resulting in Nero coming to power?

Claudius

✓ 3. Math (calculation)

What would be the surface area of a regular rectangular solid measuring 2 inches by 3 inches by 8 inches?

$$2(2 \cdot 3) + 2(3 \cdot 8) + 2(2 \cdot 8)$$

92 Square Inches

✓ 4. Literature

What Mississippi-born author won a Pulitzer Prize in 1973 for her novel The Optimist's Daughter?

Eudora Welty

✓ 5. Fine Arts

Name the popular American composer who wrote the score for the 1946 Broadway play Annie Get Your Gun.

"There's No Business Like Show Business" Irving Berlin

is from Annie Get Your Gun

✓ 6. Social Studies

In what African nation do the Blue Nile and White Nile flow together to form the main part of the Nile River?

Sudan

✓ 7. Math (Calculation)

What would be the area of a rectangular room which has a perimeter of 66 feet and one side of length 18 feet?

270 Square Feet

✓ 8. Science (Calculation)

What would be the temperature of a system in degrees Fahrenheit if a Celsius thermometer read 65 degrees?

$$9/5 + 32$$

149 Degrees

✓ 9. Literature

Name the 1860 Nathaniel Hawthorne novel which deals with a group of Americans living in Italy.

1851: The House of the Seven Gables
1852: The Blithedale Romance The Marble Faun

1850: The Scarlet Letter

✓ 10. Sports

What National Hockey League team defeated the Vancouver Canucks in seven games to win the 1994 Stanley Cup? Mark Messier was a star on this team.

New York Rangers

✓ 11. Math (calculation)

In trigonometry, what is the value of the secant of 240 degrees?

- 2

✓ 12. Language Arts

An emollient is a substance with softening or soothing qualities.
Spell emollient.

E-M-O-L-L-I-E-N-T

✓ 13. Social Studies

What famous French leader made a speech on BBC radio from London on June 18, 1940, in which he invited all Frenchmen to join him in a resistance movement against the Germans?

Charles de Gaulle

✓ 14. Science

Identify element number 11 on the periodic table. It is an extremely reactive metal which readily combines with negative ions.

Sodium

✓ 15. Literature

In Greek mythology, who was the son of Odysseus who aided his father in killing his mother's suitors?

Telemachus

Round 2 - Toss Up/Bonus

1. Science

What is defined precisely in physics as "a device for the more convenient application of an applied force, multiplication of an applied force, or transformation of energy?"

Machine

Bonus 1 - Math (calculation)

Give the fractional equivalents of the following decimals which have been rounded to four decimal places:

1. .1429 - $1/7$
2. .0625 - $1/16$

3. .5556 - $5/9$
4. .1818 - $2/11$

2. Social Studies

Of what small Mediterranean island nation does the city of Valleta serve as capital?

Malta

Bonus 2 - Science

Identify the following chemical elements:

1. Element number 80; a liquid at room temperature - Mercury
2. Element number 17; it forms a poisonous gas - Chlorine
3. Element number 97; it is named for a California city - Berkelium
4. Element number 76; it has the highest density - Osmium

3. Literature

Name the English literary figure, best known as a poet, who wrote the verse dramas The Cocktail Party and Murder in the Cathedral.

T.S. Eliot

Bonus 3 - Fine Arts

Give the original nationalities of the following artists:

1. Salvador Dali - Spanish
2. Jan Vermeer - Dutch
3. Edvard Munch - Norwegian
4. Paul Klee - Swiss

4. Math

What is the term in geometry given to a line segment whose endpoints are on a circle? If such a line passes through the center of the circle it is the diameter.

Chord

Bonus 4 - Literature

In what wars is the plot of the following novels set:

1. The Red Badge of Courage - U.S. Civil War Chancelorsville
2. The Caine Mutiny - Second World War
3. A Farewell to Arms - First World War
4. For Whom the Bell Tolls - Spanish Civil War

5. Business

What is the modern term given to the total amount of goods and services made in the United States in a given year?

Gross Domestic Product

Bonus 5 - Social Studies

Name the states in which the following serve as governor:

1. Edwin Edwards - Louisiana
2. Christine Whitman - New Jersey
3. Kirk Fordice - Mississippi
4. Ed Schafer - North Dakota

6. Fine Arts

What French composer of the nineteenth century wrote the Fantastic Symphony and the Romeo and Juliet symphony?

Hector Berlioz

Bonus 6 - Health

Name the human body organs which do the following:

1. Produces bile - Liver
2. Stores bile - Gall Bladder
3. Contains endocrine glands to make insulin - Pancreas
4. Removes old blood cells from circulation - Spleen

7. Social Studies

Name the Frankish leader who defeated the Arabs at Tours in 732, halting the Arab advance in Europe.

Charles Martel

Bonus 7 - Math (Calculation)

Answer the following:

1. What is the square root of 784? 28
2. What is the number 9 in binary notation? 1001
3. What is the radian measure of a 105 degree angle? $7\pi/12$
4. What is 7 factorial divided by 3 factorial? 840

4. Social Studies

Name the only letter of the alphabet which does not begin the name of at least one member nation of the United Nations.

X

Bonus 4 - Science

Identify the following from the science of astronomy:

1. The planet with the shortest sidereal period - Mercury
2. The lunar phase when 3/4 of the moon is lit - Gibbous
3. The month when the earth is closest to the sun - January
4. The point where the sun reaches its most northern position - Summer Solstice

5. Language Arts

What is the term given to the type of sentence which makes a direct statement, such as "John won the tournament?"

Declarative

Bonus 5 - Health

Identify the following human body parts:

1. The bone forming the upper arm - Humerus
2. The largest part of the brain - Cerebrum
3. The inner layer of the eye - Retina
4. The gland which produces calcitonin - Thyroid

6. Math

The volume of what type of three dimensional figure can be calculated by multiplying the area of its base times 1/3 of the height?

Pyramid

Bonus 6 - Literature

Name the fathers of the following figures in Greek mythology:

- | | |
|-----------------------|---------------------|
| 1. Hercules - Zeus | 3. Phaedra - Minos |
| 2. Antigone - Oedipus | 4. Theseus - Aegeus |

7. Home Economics

What is the term given to the process of boiling a food for the purpose of whitening or removing the skin from the food? This is sometimes done as a preparation for freezing.

Blanching

Bonus 4 - Literature

Give the numbers which complete the titles of the following literary works:

11. Pillars of Wisdom by T.E. Lawrence - Seven
12. Slaughterhouse by Kurt Vonnegut - Five
13. Butterfield by John O'Hara - 8
14. Mila by Leon Uris - 18

(Heller's Catch 22 was to have been Catch 18, but Mila 18 came out first; so, Heller changed title.)

15. Health

What is the term given to the property of vision which allows you to quickly change focus between objects at different distances?

Accommodation

Bonus 5 - Social Studies

Name the winning side of the following historic battles:

1. Midway - United States
2. Kursk - Soviet Union (Russia)
3. Zama - Rome
4. Austerlitz - France (Napoleon)

6. Fine Arts

What is the common name given to Beethoven's Symphony Number 6 in F Major, a five-movement symphony published in 1809?

Pastoral Symphony

Bonus 6 - Math (calculation)

Answer the following:

1. What is the square of the sine of a 45 degree angle? . 5 or 1/2
2. What is the logarithm of 729 to the base 3? 6
3. What is the square root of 1024? 32
4. What is the cube root of 3375? 15

7. Social Studies

Mount Blanc is the tallest peak in the European Alps. In what nation is Mount Blanc located?

France

Bonus 7 - Sports

Name the conferences in which the following colleges compete in NCAA basketball:

1. Nebraska - ~~Big 8~~ or Big 12
2. Brown - Ivy League
3. Wichita State - Missouri Valley Conference
4. Bowling Green - American Conference

8. Science

Which planet contains the highest known mountain in the solar system, the giant volcano Olympus Mons?

Mars

Bonus 8 - Literature

Name the novels in which you meet the following characters:

1. Catherine Linton - Wuthering Heights
2. Tom Joad - The Grapes of Wrath
3. Edmond Dantes - The Count of Monte Cristo
4. Marianne Dashwood - Sense and Sensibility

Catherine Earnshaw, before she wed

9. Math (calculation)

Using imaginary numbers, what is $(1 + i)$ times $(2 + i)$?

$1 + 3i$

Bonus 9 - Social Studies

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

1. Cape Hatteras National Seashore - North Carolina
2. Great Sand Dunes National Monument - Colorado
3. Great Basin National Park - Nevada
4. Fort Matanzas National Monument - Florida

10. Literature

Name the nineteenth century American author who wrote the short story The Bride Comes to Yellow Sky.

Stephen Crane

Bonus 10 - Science

Answer the following:

1. What chemical element has an atomic number of 94? Plutonium
2. What is the more common name for aurora borealis? Northern Lights
3. What astronomical constellation represents a swan? Cygnus
4. What metallic element is found in the mineral kaolinite? Aluminum

P

M.E.

Round 3 - Toss Up

✓1. Science

What would be the resistance of a wire in which a current of 2 amperes flows when it is connected to a 24 volt battery?

12 Ohms

✓2. Social Studies

Which article of the U.S. Constitution explains the process of amending the Constitution?

Article V

✓3. Math (calculation)

Give the average of the following five numbers: 17, 21, 32, 45, 53

33.6

✓4. Literature

Name the English poet, known for his "nonsense poems," who wrote the famous poem "The Owl and the Pussycat."

Edward Lear

✓5. Language Arts

Give the Spanish word for the season of Spring.

Primavera

✓6. Math (Calculation)

Convert 8 1/3 percent into fractional form.

1/12

✓7. Social Studies

In what U.S. state can you visit Silver City, Farmington, and Carlsbad?

New Mexico

✓8. Science

What is the term in chemistry used to describe two compounds, such as the sugars glucose and fructose, which have the same chemical formula but different arrangements of atoms?

Isomers

9. Literature

What American author and poet wrote a series of poems concerning the Civil War which were published in 1866 under the collective title Battle-Pieces?

Herman Melville

10. Fine Arts

Give the term for the style of art and architecture which flourished in the seventeenth and eighteenth centuries and was characterized by exuberant decorations, curvaceous forms, and a grand scale which often generated a sense of movement.

Baroque

11. Math (Calculation)

If an angle is in the first quadrant of a Cartesian plane and the sine of the angle is $\frac{4}{5}$, what is the cosine of the angle?

$\frac{3}{5}$

12. Science

In the modern system of classification in biology, into what order of mammals are squirrels and chipmunks classified?

Rodentia (Rodents)

13. Agriculture

Of the animals found on farms in the United States, which are raised in by far the largest numbers?

Chickens

14. Literature

What famous English poet, known for his complex symbolism, wrote the 1790 volume The Marriage of Heaven and Hell?

William Blake

15. Social Studies

What ancient civilization built the cities of Ashur and Ninevah as part of their empires in the sixteenth century?

Assyria

Replacement Questions - Game 1

Toss Up

Science

What is the term for the amount of heat energy needed to raise the temperature of one gram of water by one degree Celsius?

Calorie

Math (calculation)

Convert the binary numeral 100101 into a base ten numeral.

37

Social Studies

In what country would you be if you were standing at the easternmost point of the Arabian peninsula?

Oman

Literature

Name the English author who wrote the 1814 novel Mansfield Park.

Jane Austen

Fine Arts

What famous composer wrote the 1911 ballet Petrushka?

Igor Stravinsky

Language Arts

An entrepreneur is a businessman. Spell entrepreneur.

E-N-T-R-E-P-R-E-N-E-U-R

Sports (Misc)

For what major league baseball team does young star Albert Belle play? He led the American League in RBI's in 1993.

Cleveland Indians

Bonus

now (1997) White Sox

Science

Give the atomic numbers of the following elements:

1. Oxygen - 8

3. Argon - 18

2. Plutonium - 94

4. Gold - 79

Math (calculation)

Convert the following degree measures into radians:

- | | |
|--------------------------|----------------------------|
| 1. 20 degrees - $\pi/9$ | 3. 320 degrees - $16\pi/9$ |
| 2. 15 degrees - $\pi/12$ | 4. 420 degrees - $7\pi/3$ |

Social Studies

Name the U.S. states from which the following are Senators:

1. Bill Bradley - New Jersey
2. Jesse Helms - North Carolina
3. Nancy Kassebaum - Kansas
4. Bob Graham - Florida

Literature

Name the authors of the following works:

1. The Red Pony - John Steinbeck
2. Hans Brinker - Mary Mapes Dodge
3. An American Tragedy - Theodore Dreiser
4. The Assistant - Bernard Malamud

Fine Arts

Name the art movements with which the following artists were most closely associated:

1. Claude Monet - Impressionism
2. Georges Braque - Cubism
3. Henri Matisse - Fauvism
4. Vincent Van Gogh - ~~Expressionism~~
Post-impressionism

Language

Of what is someone unnaturally afraid if they suffer from the following phobias:

1. Hemaphobia - Blood
2. Autophobia - Being Alone
3. Cardiophobia - Heart Disease
4. Cryophobia - Ice or Frost

Sports (Misc)

Give the nicknames of the following teams in the National Hockey League:

1. Chicago - Black Hawks
2. Pittsburgh - Penguins
3. Buffalo - Sabres
4. Detroit - Red Wings