

Straight A Quiz Questions
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Show-Me Academic Challenge
Spring 1994

Game Eleven

Round 1 - Toss Up

1. Science

What is the term in anatomy given to the long, U-shaped tubule inside the nephron of the kidney from which water and salts are reabsorbed from urine? It is named for a nineteenth century German anatomist.

Loop of Henle

2. Social Studies

Name the Nicaraguan Marxist who was the leader of the Sandinistas that ruled the country from 1971 to 1990.

Daniel Ortega

3. Math (calculation)

Simplify the following: $12X^2 + 17X - 40$ divided by $4X - 5$.

$3X + 8$

4. Literature

In what Thomas Hardy novel do you meet the neurotic character Sue Bridehead, the cousin of the title character?

Jude the Obscure

5. Fine Arts

Name the British-born composer who wrote the scores for the musicals Evita, Cats, and The Phantom of the Opera.

Andrew Lloyd Webber

6. Social Studies

What type of philosophy, popular in the mid-twentieth century, was put forth in the writings of French author Jean-Paul Sartre?

Existentialism

7. Math

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

Cosine

9. Science

What is the term in meteorology given to the temperature to which air at a given pressure and water vapor content must be lowered for saturation to occur?

Dew Point

10. Literature

What beautiful princess was the hero Perseus married in Greek mythology after he rescued her from a sea monster?

Andromeda

11. Home Economics

What is the term given to the kitchen utensil which consists of a looped wire attached to a handle? It is used with a swift, circular motion to mix sauces, eggs, or other ingredients.

Whisk

12. Math (calculation)

John makes \$12.50 per hour on his construction job. He is paid one and a half times this for any hours over 40 which he works in one week. What is John's gross pay for a week in which he works 44 hours?

\$575.00

13. Language Arts

What two traits does a Spanish girl have if she is "bonita y morena"?

^{yr}
Pretty with dark hair

14. Social Studies

In what year did the United States lead a boycott of the Moscow Olympics in response to the Soviet invasion of Afghanistan in the previous year?

1980

15. Science

What specialized branch of biology deals with the microscopic structure of the tissues of plants and animals?

Histology

16. Literature

In which tale in Geoffrey Chaucer's The Canterbury Tales is one of King Arthur's knights forced to marry a hideous old maid who is then transformed into a beautiful young woman?

The Wife of Bath's Tale

Round 2 - Toss Up/Bonus

1. Science

The reddish-brown mineral cinnabar is the major source of what metallic element?

Mercury

Bonus 1 - Math (calculation)

1. Find the square root of 441. 21
2. Convert the binary number 1011 into base ten. 11
3. Factor the expression $5X^2 - 28X + 15$ (5X - 3) times (X - 5)
4. What is 83.1/3% expressed as a fraction? 5/6

2. Social Studies

What former Republican governor of New York served as U.S. Vice President under Gerald Ford from 1974 to 1976?

Nelson Rockefeller

Bonus 2 - Science

Give the chemical formulas for the following:

1. Aluminum Bromide - $AlBr_3$
2. Ammonium Chloride - NH_4Cl
3. Potassium Permanganate - $KMnO_4$
4. Sodium Sulfite - Na_2SO_3

3. Literature

What English literary figure called poets the "unacknowledged legislators of the world" in his 1821 essay A Defense of Poetry?

Percy Bysshe Shelley

Bonus 3 - Fine Arts

Give the original nationalities of the following famous artists:

1. Georgia O'Keeffe - American
2. Paul Gauguin - French
3. Vincent Van Gogh - Dutch
4. Thomas Gainsborough - English

Math (calculation)

What would be the volume of a pyramid having a base measuring 4 inches by 4 inches and having a height of 9 inches?

48 cubic inches

Bonus 4 - Literature

Name the Charles Dickens works which contain the following characters:

1. The Artful Dodger - Oliver Twist
2. Philip Pirrip - Great Expectations
3. Bob Cratchit - A Christmas Carol
4. Little Nell - The Old Curiosity Shop

5. Home Economics

What is the term given to a dish which has been made light and fluffy by the addition of beaten egg whites before baking?

Souffle

Bonus 5 - Social Studies

Name the capitals of the following nations:

1. Chile - Santiago
2. Syria - Damascus
3. Switzerland - Bern
4. Zambia - Lusaka

6. Fine Arts

Name the famous opera by Giuseppe Verdi which was commissioned for the celebration of the opening of the Suez Canal. It is set in ancient Egypt and was first performed in Cairo in 1871.

Aida

Bonus 6 - Sports

Give the nationalities of the following professional tennis players who competed from the 1960's through today:

1. Ken Rosewall - Australian
2. Guillermo Vilas - Argentine
3. Vitas Gerulaitis - American
4. Amos Mansdorf - Israeli

7. Social Studies

What is the fewest number of electoral votes held by any U.S. state in a presidential election?

Three

Bonus 7 - Math (calculation)

1. Evaluate 11 cubed. 1331
2. What are the three consecutive even integers whose sum is 42?
12, 14, 16
3. Factor the expression $2X^2 + X - 6$
(2X - 3) times (X + 2)
4. Give the cosine of $2\pi/3$.
- 1/2

8. Science

What does an animal do if it is said to be oviparous?

Lays Eggs

Bonus 8 - Social Studies

In what years did the following events occur:

1. The First World War began - 1914
2. Jimmy Carter was elected president - 1976
3. U.S. involvement in the Vietnam War ended - 1973
4. Fidel Castro took over as leader of Cuba - 1959

9. Math

What point of a function can be found by determining the point where the first derivative of the function is zero and the second derivative is negative?

Maximum

Bonus 9 - Literature

Identify the following figures from Greek mythology:

1. The builder of the Cretan Labyrinth - Daedalus
2. The king of Troy during the Trojan War - Priam
3. The lover of Thisbe - Pyramus
4. The mother of Apollo - Lēto
≡ clue!

10. Literature

Name the 19th century British poet who wrote the poems "The Forsaken Merman," "Empedocles on Etna," and "Dover Beach."

Matthew Arnold

Bonus 10 - Science

Name the metals for which the following minerals are important ores:

1. Bauxite - Aluminum
2. Rutile - Titanium
3. Stibnite - Antimony
4. Galena - Lead

Round 3 - Toss Up

1. Social Studies

In what southern African nation would you be if you were visiting the capital city of Maputo?

Mozambique

2. Math

Give the value of an angle in degrees if it is in the second quadrant of a Cartesian plane and the tangent of the angle is negative 1.

135 Degrees

3. Literature

What twentieth century author wrote the 1930 collection of stories entitled Flowering Judas? She also wrote the 1962 novel Ship of Fools.

Katherine Anne Porter

4. Science

In what constellation of the zodiac is the sun when it reaches its northernmost point in the sky in June of each year?

Gemini

5. Language Arts

What is the term in grammar for the mood of a verb which is used to give a command or make a request?

Imperative

6. Math (calculation)

Three moods are: declarative, " , subjunctive)

Factor the following expression: $3X^2 + X - 2$

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

7. Social Studies

Name the U.S. Secretary of State during the Truman administration. He was influential in forming NATO and developing foreign policy early in the Cold War.

Dean Acheson

8. Science

What magnesium silicate mineral, an important source for ceramic material, has a hardness of only 1 on the Moh's Scale?

Talc

9. Literature

In Longfellow's narrative poem "The Courtship of Miles Standish," what friend of Standish is asked by him to woo Priscilla?

John Alden

10. Fine Arts

Name the artist of the Italian Renaissance who created the painting The School of Athens in 1511 and Saint George Slaying the Dragon in the following year.

Raphael

11. Math (calculation)

Solve the following equation and state your answer as a mixed numeral in lowest terms: $7X - 5 = 17X + 31$.

$$X = -3 \frac{3}{5}$$

12. Science

In nuclear physics, what is the term for the class of elementary particles which includes neutrons, protons, and hyperons?

Baryons

13. Health

What is the term given to the condition in which a person's body temperature falls below normal due to exposure to cold?

Hypothermia

14. Literature

Name the heroine of Alexander Pope's mock-heroic poem The Rape of the Lock. She is described as being the fairest of mortals.

Belinda

15. Social Studies

Give the nickname of Alan Shepard's Mercury spacecraft which carried him on a suborbital flight on May 5, 1961, to make Shepard the first American in space.

Freedom 7

Round 4 - Toss Up/Bonus

1. Literature

Name the English poet who wrote of the pirate Conrad and his enemy Seyd in the 1814 narrative poem The Corsair.

Lord Byron

Bonus 1 - Social Studies

Name the U.S. states in which you can find the following rivers:

1. Yazoo River - Mississippi
2. Gila River - Arizona
3. Snake River - Idaho (on border with Oregon)
4. Cape Fear River - North Carolina

2. Math (calculation)

Solve the following simultaneous equations for X and Y:

$$5X + 3Y = 5 \quad \text{and} \quad 2X - Y = -9$$

$$X = -2, \quad Y = 5$$

Bonus 2 - Science

Answer the following questions concerning chemistry:

1. Give the chemical symbol for antimony.

Sb

2. What element was once known as wolfram?

Tungsten

3. What is the formula for hydrogen peroxide?

H₂ O₂

4. What is the formula for ethene?

C₂ H₄

3. Science

Name the cold ocean current which flows south from the Arctic Ocean past Newfoundland, where it runs into the northerly flowing Gulf Stream.

Labrador Current

Bonus 3 - Language Arts

Give the Spanish words for the following:

1. February - Febrero
2. Milk - Leche
3. Blue - Azul
4. Dog - Perro

4. Social Studies

Prior to the First World War, what European nation controlled the African area which is now Namibia?

Germany

Bonus 4 - Health

1. What is the general term for drugs which increase the activity of the body?

Stimulants

2. What organ of the body breaks down old red blood cells?

Spleen

3. Name the naturally occurring brain proteins which reduce pain and enhance pleasure.

Endorphins

4. A deficiency of what mineral in the diet may cause a goiter?

Iodine

5. Language Arts

What is the term for words which look alike and have similar meanings in two different languages? They are usually derived from the same roots words in an ancient language.

Cognates

Bonus 5 - Math (calculation)

Simplify the following:

1. Square root of 72 = 6 square roots of 2

2. Square root of 48 = 4 square roots of 3

3. $\frac{3x^2 - x - 2}{3x + 2} = x - 1$

4. $\frac{2x^2 + 11x + 12}{x + 4} = 2x + 3$

6. Sports

Name the college football coach who achieved his 200th career victory on October 7, 1993. He is the coach of the University of Nebraska.

Tom Osborne

Bonus 6 - Science

Name the chemical elements which lie one space to the right of the following on the periodic table:

1. Sodium - Magnesium

2. Chlorine - Argon

3. Uranium - Neptunium

4. Iodine - Xenon

7. Math (calculation)

Find the perimeter of a room with an area of 130 square feet if one side of the room measures 12.5 feet?

45.8 Feet

Bonus 7 - Literature

Name the authors of the following works:

1. Daisy Miller - Henry James
2. Mansfield Park - Jane Austen
3. The Talisman - Sir Walter Scott
4. The Chainbearer - James Fenimore Cooper

8. Science

What is the term given to a huge basin in the summit of a volcano, much larger than a crater, which is formed by a tremendous explosion or by collapse of the entire volcano?

Caldera

➤ Bonus 8 - Social Studies

Under what U.S. presidents did the following men serve as Secretary of State:

1. Alexander Haig - Ronald Reagan
2. James Madison - Thomas Jefferson
3. Henry Clay - John Quincy Adams
4. Dean Rusk - John F. Kennedy

too slow!

9. Literature

What short novel by Herman Melville was not published until 1924, having been found among his papers after his death?

Billy Budd

Bonus 9 - Math

Give the square roots of the following numbers:

1. 196 - 14
2. 1681 - 41

3. 324 - 18
4. 12100 - 110

10. Social Studies

What Israeli Prime Minister signed the historic 1978 peace treaty with Egypt? He was Prime Minister from 1977 to 1983.

Menachem Begin

Bonus 10 - Literature

Name the novels in which you meet the following characters:

1. Hester Prynne - The Scarlet Letter
2. Phileas Fogg - Around the World in Eighty Days
3. Nicole Diver - Tender is the Night
4. Antonia Shimerda - My Antonia

Replacement Questions - Round 11

Toss Up

Science

What specific name is given to the type of sugar found in a molecule of DNA?

Deoxyribose

Math

What would be the measure of an angle in radians if it is in the first quadrant of a Cartesian plane and the sine of the angle is equal to its cosine?

$\pi/4$

Social Studies

What U.S. president had his reputation tarnished when his secretary of the interior, Albert B. Fall, was convicted of bribery in the infamous Teapot Dome Scandal?

Warren Harding

Literature

What satirical 1886 novel by Henry James contains the characters Olive Chancellor and Basil Ransom?

The Bostonians

Fine Arts

What Russian-born composer wrote the 1913 ballet The Rite of Spring.

Igor Stravinsky

Language

Name the two voices of English verbs.

Active and Passive

Misc-Health

What is the term given to the clear, curved layer on the outer part of the eye through which light first passes as it enters the eye?

Cornea

Bonus

Science

Name the chemical elements which have the following atomic numbers:

1. 8 - Oxygen

2. 11 - Sodium

3. 18 - Argon

4. 94 - Plutonium

Math

Find the square roots of the following numbers:

- | | |
|--------------|-----------------|
| 1. 324 - 18 | 2. 625 - 25 |
| 3. 1764 - 42 | 4. 10,201 - 101 |

Social Studies

Name the capitals of the following Australian states:

1. New South Wales - Sydney
2. Queensland - Brisbane
3. Victoria - Melbourne
4. Northern Territory - Darwin

Literature

Name the American authors of the following works:

1. The Crucible - Arthur Miller
2. The Sound and the Fury - William Faulkner
3. In Cold Blood - Truman Capote
4. Marjorie Morningstar - Herman Wouk

Fine Arts

Name the artists who created the following works:

1. The Night Watch - Rembrandt
2. On the Terrace - Pierre Renoir
3. The Starry Night - Vincent Van Gogh
4. Jan Arnolfini and His Wife - Jan Van Eyck

Giovanni

Language

Spell the following:

1. Extenuating - E-X-T-E-N-U-A-T-I-N-G
2. Loquacious - L-O-Q-U-A-C-I-O-U-S
3. Incorrigible - I-N-C-O-R-R-I-G-I-B-L-E
4. Unconscionable - U-N-C-O-N-S-C-I-O-N-A-B-L-E

Misc-Sports

Name the colleges or universities in which the following men played NCAA basketball:

1. Magic Johnson - Michigan State
2. Pete Maravich - Louisiana State (LSU)
3. Horace Grant - Clemson
4. Sam Perkins - University of North Carolina