

Game Nine

Round 1 - Toss Up

1. Science

In what month of the year does the earth reach aphelion, the farthest point in its orbit from the sun?

July

2. Math (calculation)

A certain cylinder has a volume of 72π cubic inches. If the height of the cylinder is 8 inches, what is its radius?

3 inches

3. Social Studies

Name the Democratic senator from Hawaii who served as chairman of the Senate Iran-Contra committee in the late 1980's.

Daniel Inouye

4. Literature

What nineteenth century American author wrote the story The Gold Bug, a tale of a treasure hunt on a coastal island?

Edgar Allan Poe

5. Fine Arts

What is the term given to the style of architecture dominant from the twelfth through the sixteenth centuries in Europe? It is characterized by flying buttresses, pointed arches, and stonework.

Gothic

6. Social Studies

What is the term for the philosophy developed in the late nineteenth century by Soren Kierkegaard and expanded upon in the twentieth century by Karl Jaspers and Martin Heidegger?

Existentialism

7. Math (calculation)

If a dress normally costing \$68.00 is reduced in price by 15% in a sale, what is the new cost of the dress?

\$57.80

8. Science

Certain flowers can be classified as perfect flowers but yet be considered incomplete flowers. What two structures must a flower possess to be considered a perfect flower?

Pistil and Stamen

9. Literature

During the Trojan War in Greek mythology, who was the greatest Trojan hero? He was finally killed by Achilles.

Hector

10. Home Economics

What type of spice, made from the dried leaves of an evergreen shrub, is characterized by its medicinal, menthol flavor? It is available in whole or ground form and is used in soups and many meat dishes.

Rosemary

11. Math (calculation)

In properly stated hours and minutes, what is 4 hours 15 minutes multiplied by 5?

21 hours 15 minutes

12. Language Arts

What two words in the English language are referred to as the indefinite articles?

"A" and "An"

13. Social Studies

You fly on a direct flight from Topeka, Kansas to Bismarck, North Dakota. Other than Kansas and North Dakota, over what two states will you fly?

Nebraska and South Dakota

14. Science

Name the German bacteriologist, a contemporary of Louis Pasteur, who discovered and isolated the organisms causing anthrax and tuberculosis in the nineteenth century. Along with Pasteur, he helped prove that microorganisms were the cause of many diseases.

Robert Koch

15. Literature

What English author of the early twentieth century wrote the novels The Longest Journey and Where Angels Fear to Tread?

E.M. Forster

Round 2 - Toss Up/Bonus

1. Science

Give the number of protons which would be found in one molecule of carbon dioxide.

22

Bonus 1 - Math (calculation)

1. 42 is 15% of what larger number?

280

2. Give the square of the sine of a 240 degree angle.

.75 or 3/4

3. Find the square root of 961.

31

4. Find the cube root of 1331.

11

2. Social Studies

Name the city which serves as the capital of Pakistan.

Islamabad

Bonus 2 - Science

Name the elements which have the following atomic masses:

1. 4 - Helium
2. 16 - Oxygen
3. 35.5 - Chlorine
4. 20 - Neon

3. Literature

Variation of question once, "Where were Gabriel ..."

In what Thomas Hardy novel do you meet the characters Gabriel Oak and Bathsheba Everdene?

Far From the Madding Crowd

* Bonus 3 - Fine Arts

Name the composers of the following works:

1. The Nutcracker - P.I. Tchaikovsky
2. Pomp and Circumstance - Sir Edward Elgar - *Enigma Variations*
3. The Goldberg Variations - J.S. Bach
4. The Song of the Earth - Gustav Mahler

4. Math (calculation)

Factor the expression $4X^2 - 5X - 6$.

$(4X + 3)$ times $(X - 2)$

Bonus 4 - Literature

Name the poets who wrote the following poems:

1. "The Love Song of J. Alfred Prufrock" - T.S. Eliot
2. "Chicago" - Carl Sandburg
3. "Endymion" - John Keats
4. "John Brown's Body" - Stephen Vincent Binet

written when he was 16! same as Wm. Cullen Bryant when "Thanatopsis"

5. Agriculture

What is the term in agriculture given to a ~~male~~ chicken which is being specifically raised for meat?

Broiler

Bonus 5 - Social Studies

Name the U.S. presidents who were the authors of the following books:

1. Profiles in Courage - John F. Kennedy
2. Rough Riders - Theodore Roosevelt
3. Crusade in Europe - Dwight D. Eisenhower
4. A Time to Heal - Gerald Ford

1872 = Monet's Impression: Sunrise

6. Fine Arts

What nineteenth century French artist created the 1866 painting Boy With a Pipe, sometimes simply known as The Fifer?

Edouard Manet

Bonus 6 - Math

1. Convert the fraction $3/25$ to decimal form.

.12

2. Give the number 27 in base two notation.

11011

3. Give the number 27 in base eight notation.

33

4. How is the number 11 expressed in base 16 notation?

B

7. Social Studies

Its capital is St. John's. Name this easternmost Canadian province.

Newfoundland

Bonus 7 - Health

1. The concentration of what element in blood is controlled by parathyroid hormone?
Calcium
2. After calcium, what is the next most common mineral in bone?
Phosphorous
3. What is the term given to vertebrae in the neck?
Cervical Vertebrae
4. How many cervical vertebrae are in a human?
Seven

8. Science

The moons Io and Europa orbit around which planet of the solar system?
Jupiter

Bonus 8 - Literature

Name the British authors of the following works:

1. Jude the Obscure - Thomas Hardy
2. Moll Flanders - Daniel Defoe
3. Henry Esmond, Esq. - William M. Thackeray
4. Claudius the God - Robert Graves

9. Math (calculation)

What is the second derivative of the trigonometric function sine X?
Negative Sine X

Bonus 9 - Social Studies

In what U.S. states are the following lakes located:

1. Lake Mead - Nevada
2. Lake Shasta - California
3. Lake Powell - Arizona
4. Toledo Bend Reservoir - Louisiana

10. Literature

In Mark Twain's classic novel The Adventures of Tom Sawyer, Tom and Huck Finn witness the murder of the town doctor by what evil character?

Injun Joe

Round 10 - Science

Give the electrical charges of the following chemical radicals:

1. Nitrate - Negative 1
2. Nitrite - Negative 1
3. Ammonium - Positive 1
4. Sulfite - Negative 2

Round 3 - Toss Up

1. Social Studies

At what site in Vietnam did French forces suffer a crushing defeat in May of 1954 after a long siege in the Indochina War?

Dien Bien Phu

2. Math (calculation)

What is $(2X - 5)$ times $(X + 4)$?

$$2X^2 + 3X - 20$$

3. Literature

In Greek mythology, Ariadne was deserted by the hero Theseus. What demigod did Ariadne then marry?

Dionysus

4. Science

Give the chemical formula for phosphoric acid, also known as hydrogen phosphate.

H3 PO4

5. Language Arts

Although it is often thought to be last, what is the sixth letter of the Greek alphabet?

Zeta

6. Math (calculation)

Solve the following equation for X and state your answer as a mixed numeral in lowest terms: $6X - 10 = 3X + 15$

$$X = 8 \frac{1}{3}$$

7. Social Studies

What U.S. state did popular Republican senator Barry Goldwater represent in Washington for many years?

Arizona

8. Science

A force of 20 Newtons acts on a 2 kilogram mass for 10 seconds. Ignoring friction or any other outside forces, what would be the change in speed of the mass?

100 meters per second ²

9. Literature

Name the nineteenth century American poet who wrote a series of sixteen poems collectively entitled Children of Adam.

Walt Whitman

10. Fine Arts

Name the abstract expressionist painter, known for his large canvases of dripped and swirling paint, who was killed in an automobile accident on Long Island in August of 1956 at the age of 44.

Jackson Pollock

11. Math (calculation)

In a right triangle, give the value of the acute angle A in degrees if the side opposite the angle has a length of 4 and the hypotenuse has a length of 8.

30 degrees

12. Science

What type of geologic force produces the long, thin bodies of water known as "finger lakes."

(There are 7 "Finger lakes")

Glaciers

13. Health

What is the term for the large dome-shaped muscle under the lungs which aids in breathing in humans?

Diaphragm

14. Literature

What twentieth century American author won a Pulitzer Prize for his novel The Bridge of San Luis Rey?

1927

Thornton Wilder

15. Social Studies

Who was the last Plantagenet king of England? He ruled from 1377 to 1399.

Richard II

Round 4 - Toss Up/Bonus

1. Literature

What famous British poet wrote the 1855 poem "Childe Roland to the Dark Tower Came"?

Robert Browning

Bonus 1 - Social Studies

Name the U.S. states which contain the following national parks:

1. Acadia National Park - Maine
2. Glacier National Park - Montana
3. Mammoth Cave National Park - Kentucky
4. Zion National Park - Utah

2. Math (calculation)

Find the square root of 1024.

32

Bonus 2 - Science

Name the astronomical constellations which represent the following:

1. A crab - Cancer
2. A flying horse - Pegasus
3. An archer - Sagittarius
4. A swan - Cygnus

3. Social Studies

Name the African nation which lies on the northern border of the country of Senegal.

Mauritania

Bonus 3 - Language Arts

Give the full meanings of the following common initials:

1. SAT - Scholastic Aptitude Test
2. FDA - Food and Drug Administration
3. DOA - Dead on Arrival
4. SASE - Self Addressed Stamped Envelope

4. Science

In what geologic period of the Cenozoic Era are the most recent ice ages considered to have occurred?

Pleistocene

Bonus 4 - Sports

Name the stadiums in which the following major league baseball teams play their home games:

1. San Francisco Giants - Candlestick Park
2. New York Mets - Shea Stadium
3. Seattle Mariners - Kingdome
4. San Diego Padres - Jack Murphy Stadium

(Three Com Park, now)

5. Language Arts

In the sentence, "John has his own engraved stationery.", what is the correct spelling of the word "stationery"?

S-T-A-T-I-O-N-E-R-Y

Bonus 5 - Math (calculation)

1. Find the square root of 729. 27
2. Give the measure of a 220 degree angle in radians? $11\pi/9$
3. Convert the number 31 into binary notation. 11111
4. Convert the number 31 into a base 16 numeral. 1F

6. Math

Simplify the following: $6X^2 + 23X - 35$ divided by $X + 5$.

$6X - 7$

Bonus 6 - Science

Name the biologists who did the following:

1. Wrote The Origin of the Species - Charles Darwin
2. Worked with Francis Crick to find the structure of DNA - James Watson
3. Discovered and named cells - Robert Hooke
4. Discovered the nucleus of cells - Robert Brown

7. Industrial Arts

What is the term given to a cylindrical wooden pin used as a fastener for reinforcing joints or for aligning boards?

Dowel

Bonus 7 - Literature

Name the authors of the following novels which were all set during the Second World War:

1. The Caine Mutiny - Herman Wouk
2. The Naked and the Dead - Norman Mailer

8. Science

What is the term in physics which refers to the tendency of all objects to remain still, or, if moving, to continue to move in a straight line unless acted upon by an outside force?

Inertia

Bonus 8 - Social Studies

Answer the following questions concerning the 1970's:

1. Who became U.S. president in 1974?

Gerald Ford

2. What Soviet leader signed the SALT II treaty?

Leonid Brezhnev

3. What country seized the U.S. merchant ship Mayaguez in 1975?

Cambodia

4. In what city did a mysterious disease kill 29 people at an American Legion convention in 1976?

Philadelphia

9. Literature

What American author, popular for his science fiction, wrote the collections of stories The Machineries of Toy and I Sing the Body Electric!?

Ray Bradbury

Bonus 9 - Math

Convert the following into Roman numerals:

1. 18 - XVIII

2. 124 - CXXIV

3. 97 - XCVII

4. 1994 - MCMXCIV

10. Social Studies

What was the term for the series of 1767 acts by the British which levied taxes on glass, painter's lead, paper, and tea in the colonies?

Townshend Acts

Bonus 10 - Literature

Name the following personalities from Greek mythology:

1. The Cyclops blinded by Odysseus - Polyphemus
2. The slayer of Patroclus at Troy - Hector
3. The wife of Odysseus - Penelope
4. The father of Orestes - Agamemnon

Replacement Questions - Round 9

Toss Up

Science

What unit of energy used in physics is equal to one kilogram meter squared per second squared?

Joule

Math (calculation)

In lowest terms, what is the product of $5/8$ times $4/9$ times $6/7$?

$5/21$

Social Studies

In what year did England defeat the infamous Spanish Armada sent by Philip II?

1588

Literature

What personification of Heaven in Greek mythology was the father of the Titans?

Uranus

Fine Arts

Name the American composer who wrote the scores for the musicals On the Town and Candide.

Leonard Bernstein

Language

What grammatical term is used to refer to the needless repetition of ideas, as in the phrase "blend together?"

Redundancy

Misc-Health

What is the term given to the eating disorder in which a person has an intense fear of obesity and often shows dramatic weight loss?

Anorexia Nervosa

Bonus

Science

Name the cellular organelles which perform the following functions:

1. Break down glucose - Mitochondria
2. Produce glucose - Chloroplasts
3. Assemble amino acid chains - Ribosomes
4. Digest materials in the cell - Lysosomes

Math (calculation)

Factor the following expressions:

1. $X^2 + X - 12$ - $(X + 4)$ times $(X - 3)$
2. $2X^2 + 11X - 40$ - $(2X - 5)$ times $(X + 8)$
3. $15X^2 - 11X + 2$ - $(3X - 1)$ times $(5X - 2)$
4. $32X^2 + 16X - 35$ - $(4X + 7)$ times $(8X - 5)$

Social Studies

Name the capitals of the following countries:

- | | |
|------------------------|--------------------|
| 1. Venezuela - Caracas | 2. Ecuador - Quito |
| 3. Albania - Tirana | 4. Nigeria - Lagos |

(Abuja)

Literature

Name the authors of the following works:

1. O' Pioneers! - Willa Cather
2. Billy Budd - Herman Melville
3. Black Beauty - Anna Sewall
4. The Electric Kool-Aid Acid Test - Tom Wolfe

Fine Arts

Name the composers of the following operas:

1. The Twilight of the Gods - Richard Wagner
2. Turandot - Giacomo Puccini
3. The Woman Without a Shadow - Richard Strauss
4. The Force of Destiny - Giuseppe Verdi

Language

Give the meanings of the following Latin roots:

- | | |
|-----------------------|-----------------|
| 1. Fin - End or limit | 2. Capit - Head |
| 3. Mort - Death | 4. Dent - Tooth |

Misc-Health

Identify the following:

1. Common name of Vitamin B3 - Niacin
2. Liquid to lubricate human joints - Synovial Fluid
3. Mass of nerve cell bodies found outside brain or spine - Ganglion
4. Tiny channels in bones containing blood vessels - Haversian Canals