## Game Three

### Round 1  -  Toss Up

**1. Science**

In physics, what is the term given to the property of an object which
resists changes in its motion?  It is proportional to mass.

Inertia

**2. Social Studies**

Name the series of wars, finally ending in 404 B.C., in which Sparta
defeated Athens to dominate Greece.

Peloponnesian Wars

**3. Math**

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

Tangent

**4. Literature**

In what novel by what American author do you meet the character John
Thornton and his dog Buck?

**The Call of the Wild** by Jack London

**5. Fine Arts**

and jazz pianist

Name the American composer of the early twentieth century who wrote
the song Begin the Beguine, popular in the 1930's.

Cole Porter

**6. Social Studies**

In what African nation could you visit the cities of Biskra, Annaba,
and Oran?  This country was once a colony of France.

Camus' The Plague is set in Oran       Algeria
The Stranger is set in Algeria

**7. Math (Calculation)**

Find the volume of a cylinder in terms of pi if the cylinder has a
height of 10 inches and a diameter of 16 inches.

640 pi cubic inches

## 8. Science

Name the American chemist who is the only person to have won two unshared Nobel Prizes. He won the first for chemistry in 1954 and was then awarded the Nobel Peace Prize in 1962 for his campaign against nuclear testing.

Linus Pauling

## 9. Literature

Name the English author of the late nineteenth century who wrote the novel Jude the Obscure.

*Jude Fawley & Arabella Donn &* Thomas Hardy

## 10. Philosophy

*Little Father Time*

Name the Swedish philosopher of the eighteenth century who wrote the theological works Heaven and Hell and The Apocalypse Revisited.

Emanuel Swedenborg

## 11. Math (calculation)

Factor the expression $15X^2 - X - 2$

(5X - 2) times (3X + 1)

## 12. Language Arts

What specific grammatical term is given to words such as "yes," "no," and "oh," which are used frequently, but which do not fill any of the functions of the major parts of speech and are not a part of sentence structure?

Interjections

## 13. Social Studies

Arrange the following four historical figures into chronological order according to birth: Vasco da Gama, Elizabeth I, Martin Luther, and Louis XIV.

Vasco da Gama, Martin Luther, Elizabeth I, Louis XIV

## 14. Science

In geology, what is the term for the type of large basaltic volcano formed almost entirely of fluid lava flows? The volcanoes of Hawaii are of this type.

Shield Volcano

## 15. Literature

The 1932 novel Death in the Afternoon and the 1935 novel Green Hills of Africa were both written by what popular American author? These novels concerned bullfighting and big game hunting respectively.

Ernest Hemingway

1. Science

What property of a moving object is calculated in physics by multiplying its mass times its velocity?

Momentum

Bonus 1 - Math (Calculation)

Given a sphere of radius 6, find the following (answer in terms of pi if applicable):

1. Diameter - 12
2. Circumference - 12 pi
3. Volume - 288 pi
4. Area of a circle drawn through the center - 36 pi

2. Social Studies

Who served as the seventh president of the United States from 1829 to 1837?

Andrew Jackson

Bonus 2 - Science

Identify the following:

1. Disease carried by Anopheles mosquitoes - Malaria
2. Chemicals made in leukocytes to destroy antigens - Antibodies
3. Very resistance structures made by some bacteria - Endospores
4. Type of small bacteria causing typhus and Rocky Mountain Spotted Fever - Rickettsia

3. Literature

Name the English poet of the nineteenth century who wrote the familiar poem "The Charge of the Light Brigade."

Lord
Alfred Tennyson

Bonus 3 - Fine Arts

Name the composers of the following works:

1. A German Requiem - Johannes Brahms
2. The Blue Danube - Johann Strauss
3. The Barber of Seville - Gioacchino Rossini
4. Spanish Rhapsody - Maurice Ravel

4. Math (calculation)

To four decimal places, give the decimal equivalent to 1/11.

.0909

## Bonus 4 - Literature

Name the poets who wrote the following:

1. "Kubla Khan"    *opium*    -  Samuel Taylor Coleridge
2. "Tam O'Shanter"  -  Robert Burns
3. "Do Not Go Gentle Into That Good Night"  -  Dylan Thomas
4. "The Hind and the Panther"  -  John Dryden

### 5. Agriculture

Although cotton is no longer the major crop it was in the nineteenth century, what U.S. state leads the nation in the amount of cotton grown?

Texas  _____ *(Cotton Bowl!)*

## Bonus 5 - Social Studies

Name the countries in which you find the following mountains:

1. Mount Kilamanjaro  -  Tanzania
2. Mount Everest  -  Nepal
3. Mount Aconcagua  -  Argentina
4. Mount Logan  -  Canada

### 6. Language Arts

What familiar Spanish expression literally means "See you later?"

Hasta Luego

## Bonus 6 - Business Education

List any four of the five largest U.S. retail companies as ranked by *Fortune* magazine based upon annual sales:

Sears Roebuck, Wal-Mart, K-Mart, Kroger, J.C. Penney

### 7. Social Studies

Name the U.S. battleship which was sunk in Havana harbor in February of 1898, providing the United States with a reason to begin a war with Spain.

USS Maine

## Bonus 7 - Math

Give the values of the following trigonometric functions:

1. Sine of 90 degrees    -    1
2. Cosine of 60 degrees    -  1/2
3. Cosine of 150 degrees  -  Negative square root of 3 divided by 2
4. Sine of 225 degrees    -  Negative square root of 2 divided by 2

## 8. Science

What element on the periodic table, a very valuable metal, lies between the elements iridium and gold and is element number 78?

#79

Platinum

### Bonus 8 - Literature

Name the Roman counterparts of the following Greek goddesses:

1. Athena   -   Minerva
2. Hera    -   Juno
3. Demeter   -   Ceres
4. Hestia   -   Vesta

## 9. Math (calculation)

Name the five consecutive integers whose sum is 70.

$5\overline{)70}$ 14

12, 13, 14, 15, 16

### Bonus 9 - Social Studies

Name the positions which were held by the following people in the cabinet of President Franklin Roosevelt:

1. Henry Morganthau, Jr.   -   Secretary of the Treasury
2. Cordell Hull   -   Secretary of State
3. Henry L. Stimson   -   Secretary of War
4. Frances Perkins   -   Secretary of Labor

## 10. Literature

By what collective term are the literary characters Athos, Porthos, and Aramis better known?

The Three Musketeers

### Bonus 10 - Science

Name the inventors who are credited with the following inventions:

1. Lightning Rod   -   Benjamin Franklin
2. Vulcanized Rubber   -   Charles Goodyear
3. Barometer   -   Evangelista Torricelli
4. Pendulum Clock   -   Christian Huygens

### 1. Social Studies

Name the Central American nation which has the small city of Belmopan as its capital.

Belize

### 2. Math

What is the term in geometry given to a triangle which has two of its three sides equal in length?

Isosceles

### 3. Literature

Name the famous Greek playwright of the fifth century B.C. who wrote the comedy The Birds.

Aristophanes

### 4. Science

What law in physics states that the electrical force between two charges is equal to the product of the charges divided by the square of the distance between them?

Coulomb's Law

### 5. Language Arts

What grammatical term designates the part of a sentence that includes the verb, its modifiers, and its objects?

Predicate

### 6. Math (calculation)

Solve the following equation for X and state your answer as a mixed numeral in lowest terms:   7X + 8 = 3X + 14

X = 1 1/2

### 7. Social Studies

What American financier of the nineteenth century promoted the first submarine telegraph cable between America and Europe as well as the first elevated railway in New York City?

Cyrus Field

### 8. Science

What unit in physics results when watts are multiplied by seconds?

Joules

## 9. Literature

What wood nymph in Greek mythology fell hopelessly in love with Narcissus?  When he continually rejected her, Narcissus was punished by being made to fall in love with his own image in a pool.

Echo

## 10. Fine Arts

Two of Handel's most famous works are Israel in Egypt and Messiah. Into what specific genre of music can these works be classified?

Oratorios

## 11. Math (calculation)

In trigonometry, what is the value of the secant of an angle of 60 degrees?

2

## 12. Science

Give the collective term for all of the petals on a flower.

Corolla

## 13. Home Economics

Name the dish consisting of a salad of cut-up apples, celery, and nuts topped with mayonnaise.  It is named for a famous hotel in New York.

Waldorf Salad

## 14. Literature

Name the English poet of the Romantic era who left the long, narrative poem "The Deformed Transformed" unfinished at his death in 1824.

George Gordon Byron

## 15. Social Studies

Name the Roman general who was appointed dictator in 81 B.C. after the civil war between himself and Marius.

Lucius Sulla

## 4. Social Studies

What was the term given to the widespread domestic reform program of President Woodrow Wilson in the early twentieth century?

New Freedom

## Bonus 4 - Agriculture

What are the major cash crops of the following U.S. states:

1. Nebraska  -  Corn
2. Kansas  -  Wheat
3. Idaho  -  Potatoes
4. Kentucky  -  Tobacco

## 5. Fine Arts

Name the American artist, the most prominent nineteenth century American painter, who created the seascapes Breaking Storm, The Hurricane, and The Gulf Stream.

Winslow Homer

## Bonus 5 - Math (calculation)

1. Convert the radian measure 16 pi/9 to degrees.        320 degrees

2. Factor $6X^2 + 5X - 4$                    (3X + 4) times (2X - 1)

3. Simplify the square root of 72            6 square roots of 2

4. Simplify $45X^2 - 7X - 12$ / 5X - 3        9X + 4

## 6. Math

What is the specific term in geometry given to a quadrilateral in which opposite sides are equal, opposite angles are equal, the diagonals bisect each other, and each diagonal divides the figure into two congruent triangles?

Parallelogram

## Bonus 6 - Science

Name the astronomical constellations which contain the following stars

1. Polaris -  Ursa Minor (Little Dipper)
2. Antares  -  Scorpius
3. Castor  -  Gemini
4. Betelgeuse  -  Orion

## 7. Economics

Out of what U.S. state is the largest amount of cargo shipped on freighters each year?  This state contains the busiest port in the nation.

Louisiana

## Bonus 7 - Literature

Name the authors of the following works of children's literature:

1. <u>Winnie-the-Pooh</u>  -  A.A. Milne
2. <u>The Jungle Book</u>  -  Rudyard Kipling
3. <u>Black Beauty</u>  -  Anna Sewell
4. <u>The Lion, the Witch and the Wardrobe</u>  -  C.S. Lewis

## 8. Science

Assuming that all other chromosomes are normal, how many chromosomes are found in every cell of a person with Down's Syndrome?

47

## Bonus 8 - Social Studies

Name the U.S. states which have been represented by the following in the House of Representatives:

1. Patricia Schroeder  -  Colorado
2. Vic Fazio  -  California
3. Fred Grandy  -  Iowa
4. William Archer  -  Texas

## 9. Literature

In Shakespeare's <u>Hamlet</u>, who was the weak-willed mother of Hamlet who has married her husband's brother and murderer.

Gertrude

## Bonus 9 - Math (Calculation)

1. What is the value of 2 to the 6th power?          64

2. Convert the binary number 1111 into base 10.          15

3. Find the square root of 324.          18

4. Give the first derivative of $9X^3 - 2X^2$          $27X^2 - 4X$

## 10. Social Studies

What Southeast Asian nation occupies the western half of the Indochinese Peninsula and the northern two-thirds of the Malay Peninsula?

Thailand

## Bonus 10 - Literature

Name the authors who created the following characters:

1. Fagin  -  Charles Dickens    Oliver Twist
2. Arthur Dimmesdale  -  Nathaniel Hawthorne    Scarlet
3. Paul Morel  -  D.H. Lawrence    Sons &
4. Harry Haller  -  Hermann Hesse    Steppenwolf

## Toss Up

### Science

What chemical compound forms limestone, marble, coquina, and chalk rocks?

Calcium Carbonate

### Math (calculation)

Factor the expression $X^2 - 5X - 24$

(X - 8) times (X + 3)

### Social Studies

What U.S. state contains the city of Eastport, the nation's easternmost city? *The easternmost city? would be in Alaska, because it crosses the International Dateline.* *easternmost continental city?*

Maine

### Literature

In what famous play by what author do you meet the character Henry Higgins, a language expert in England?

Pygmalion by George Bernard Shaw

### Fine Arts

Name the nineteenth century French composer who wrote the oratorio Childhood of Christ and the famous opera Damnation of Faust.

Hector Berlioz

### Language Arts

Sagacious means shrewd or wise. Spell sagacious.

S-A-G-A-C-I-O-U-S

### Agriculture (Misc)

Karakul, Romney, Targhee, and Merino are all breeds of what common domestic animal?

Sheep

## Bonus

### Science

Name the astronomical constellations which represent the following:

1. Twins - Gemini
2. A Bull - Taurus
3. A Dolphin - Delphinus
4. A Whale - Cetus

## Math (calculation)

Give the values of the following trigonometric functions:

1. Sine of 90 degrees  -  1
2. Cosine of 30 degrees  -  Square root of 3 divided by 2
3. Tangent of 60 degrees  -  Square root of 3
4. Cosine of 300 degrees  -  1/2


## Social Studies

In what U.S. cities and states are the following colleges and universities located:

1. University of Florida  -  Gainesville, Florida
2. Notre Dame  -  South Bend, Indiana
3. Ohio State  -  Columbus, Ohio
4. Brigham Young  -  Provo, Utah


## Literature

Name the poets who wrote the following poems:

1. "The Charge of the Light Brigade"  -  Alfred Tennyson
2. "To a Skylark"  -  Percy Bysshe Shelley
3. "Dover Beach"  -  Matthew Arnold
4. "Elegy Written in a Country Churchyard"  -  Thomas Gray


## Fine Arts

Name the artists who created the following works:

1. Christina's World  -  Andrew Wyeth
2. The Scream  -  Edvard Munch
3. Racehorses at Longchamp  -  Edgar Degas
4. Saint George and the Dragon  -  Raphael


## Language Arts

Give the meanings of the following Greek roots:

1. Aster  -  Star
2. Melo  -  Song
3. Hemi  -  Half
4. Chrom  -  Color


## Sports (Misc)

Name the NFL football teams which play their home games in the following stadiums:

1. The Kingdome  -  Seattle Seahawks
2. The Silverdome  -  Detroit Lions
3. Lambeau Field  -  Green Bay Packers
4. Rich Stadium  -  Buffalo Bills