1. World Literature

Which novel was written in 1948 by an expert in penal reform? The main character is Reverend Stephen Kumalo, a resident of Natal. The novel illustrates several parts of Johannesburg and the effects of the large city on the surrounding countryside. The author's name is Alan Paton.

ANSWER: Cry the Beloved Country

## 2. Algebra (30 Seconds)

Make sure your answer is fully simplified. What do you get when you square the quantity three plus the square root of five? [ Image ]

ANSWER: 14 Plus 6 Root 5 (or 6 Root 5 Plus 14) [ Image]

## 3. Biology

Give the thirteen-letter name for the microorganism first discovered by Frederick Twort in 1915. An organism of this type was the first one to have its DNA sequence completely determined. What is the term for viruses that can attack and sometimes kill bacteria?

ANSWER: Bacteriophage(s)

## 4. United States History

Which cult was a distant offshoot of Seventh-Day Adventists? Its Mount Carmel headquarters were located near Waco, Texas, and it was led by David Koresh. Identify this group that was destroyed by a fire on April 19, 1993 after a long standoff with the United States government.

ANSWER: Branch Davidian(s)

## 5. Pop Culture

Who lives in a pineapple under the sea? Absorbent and yellow and porous is he! Identify this nextdoor neighbor of Squidward and close friend of Patrick who has a cartoon show on Nickelodeon.

## ANSWER: Spongebob Squarepants (accept either half of name)

## 6. Technology

Throughout his life, which famous inventor considered his profession to be teacher of the deaf? His original experiments were designed to help his students analyze their speech, but his 1876 patent earned him far more wealth and fame than teaching ever would. Identify this inventor who started out making graphical recordings of sound waves and eventually figured out how to transmit sound waves over long distances. He invented the telephone.

ANSWER: (Alexander Graham) Bell

## 7. British Literature

He had what he called an unofficial engagement to Jessie Chambers, then had an affair with the wife of a chemist, then got engaged to Louie Burrows. In 1914, he ended up marrying Frieda Weekley, the wife of one of his tutors, after her divorce went through. Many of these women showed up with different names in his novels, including Women In Love and Sons and Lovers. Identify this author of Lady Chatterley's Lover.

ANSWER: (David Herbert Richards, or DH) Lawrence

## 8. Calculus (10 Seconds)

Other than slices, what is the common way to break down a figure that has been rotated about an axis to perform a volume integral? To do this, you either work from the inside out or outside in. You add together an infinite number of lateral surface areas, each of which is equal to two pi times the radius times the height.

ANSWER: Cylindrical Shell(s) (accept Cylinder(s))

## 9. Language Arts

Which word beginning with the letter C can refer to a musical composition, basic law, or list of books? It is often used with respect to religion, where it can refer to the body of law governing the conduct of members of a particular religion or the unchangeable part of the Catholic mass. Identify this five-letter word that is a homonym with a large weapon.

ANSWER: Canon

## 10. Chemistry (30 Seconds)

Give the name, not the chemical formula, of the mystery molecule. One mystery molecule reacts with eight molecules of oxygen gas to yield five molecules of carbon dioxide and six molecules of water. What is the name of the mystery molecule?

ANSWER: Pentane (also accept 2-methylbutane or 2,2-dimethylpropane)

## 11. World History

In which battle did Victory and Royal Sovereign break up a line of French and Spanish ships? The result was an overwhelming victory for the British with the only major loss being the death of Admiral Lord Horatio Nelson. Identify this 1805 battle that effectively ended Napoleon's hopes of ever crossing the English Channel.

ANSWER: Trafalgar

## 12. Music

(Note to moderator: 'Wagner' is pronounced 'Vogner'.) Which nine-letter German word is often associated with operas by Richard Wagner? It is a marked melodic phrase that reappears at the same time as a particular person or situation. Identify this term beginning with the letter L.

ANSWER: Leitmotif

## 13. United States Literature

Which popular novelist wrote a couple of novels in the 1960s before writing television and movie screenplays for fifteen years? She is most famous for a series she began in 1982 and plans on finishing up around 2015. Her heroine is Kinsey Millhone, who was described by Newsweek as a "thoroughly up-todate, feminine version of Philip Marlowe." This author claims that the last novel in the series will be titled Z is for Zero.

ANSWER: (Sue) Grafton

## 14. Physics (10 Seconds)

There are four types of interactions that these particles can typically undergo. One is pair production when energy is turned into an electron and a positron. Another is scattering, which is known as the Compton Effect. A third is the excitement of an atom. The fourth is the knocking out of an electron from an atom,
which is known as the Photoelectric Effect. Identify these tiny pieces of light.
ANSWER: Photon(s)

## 15. Current Events

In what city was a text adopted on December 11, 1997 that has since been signed by eighty-four nations and ratified by ninety-four nations? Many of the nations that signed it have not ratified it, including Australia, Canada, and the United States. One of its articles states: "Each Party included in Annex One shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol."

ANSWER: Kyoto (Protocol)
16. Geometry/Trigonometry (30 Seconds)

Find the number of sides of a regular polygon if each internal angle measures 150 degrees.
ANSWER: 12

## 17. Religion/Mythology

Who lived from 1509 to 1564 and often revised his work Institutes of the Christian Religion? This man was criticized when Miguel Servetus was burned for heresy, but the action helped him solidify his hold on the Protestant movement in Geneva, Switzerland.

ANSWER: (John) Calvin
18. Astronomy/Earth Science/Geography

Discovered in 1877, which body is sixteen miles across and irregularly shaped? It is likely a captured asteroid, and its orbit is under eight hours. Name this larger of the two moons of Mars.

ANSWER: Phobos

## 19. Nonfiction

Who was on the literature faculty at Sarah Lawrence College for fifty years before his fame increased with a series of interviews by Bill Moyers? Identify this author of The Masks of God and The Hero with a Thousand Faces whose interviews were titled The Power of Myth.

ANSWER: (Joseph) Campbell

## 20. Art/Architecture

What famous objects belonged to a farmer named Queruel in a field named the Clos Morin? Five were painted in 1888 , and twenty were painted in 1889 and 1890. The exhibition of the paintings in 1891 was a great success and was likely the first exhibition where all the paintings were part of a series. Identify this series showing off different shades of natural light painted by Claude Monet.

ANSWER: Haystacks (accept Les Meules, Meules, Wheatstacks, or Cereal-stacks)

## TIEBREAKERS

Which artist's works have been described as "pure psychic automatism"? He was associated with the Dadaists and surrealists early in his career, but his painting developed its own style as he went on, which
included a bright fantasy world with plain backgrounds. Identify this Spanish artist of Head of a Woman who spent much of his life in Paris. He died in 1983.

ANSWER: (Joan) Miro
Caused by certain types of mycobacteria, this disease can be spread by cow's milk to people, when it usually affects bones and joints. It is more commonly spread from one person to another and affects the lungs.
Identify this disease that historically became prevalent with the growth of cities and globally still kills two million people every year.

ANSWER: Tuberculosis (prompt on TB or Consumption)
TRUE OR FALSE: There is a constable in Shakespeare's Love's Labour's Lost named Dull.
ANSWER: True

