1. Interdisciplinary
This is the nickname of Haydn’s 43rd Symphony and the location of the Skinakas Basin and Caloris Planitia. It is also part of an alternative nickname for the Original Seven NASA astronauts and the nickname of a former Miami Dolphin whose real name was Eugene Morris. It is the name of the only element other than bromine to be a liquid at room temperature and the last name of the lead singer of Queen. Give this Roman equivalent of the Greek God Hermes.

ANSWER: Mercury

2. Pyramidal Math (30 Seconds)
This number gives the ratio of the area of a circle to the area of its inscribed square. It also equals the limit in radians as x approaches infinity of the function arctangent x, and it gives the primary radian solution to the equation sine x equals one. It equals the circumference of a circle if the radius is one-fourth. Give this irrational number equal to approximately 1.57.

ANSWER: Pi Over Two (or One-Half Pi or .5 Pi) (do not accept ½, .5, or Pi)

3. World Literature
One of his best-known quotes is, “The paired butterflies are already yellow with August Over the grass in the West garden; They hurt me. I grow older.” One of his best-known poems is titled “Three—With the Moon and His Shadow”. He lived in the 8th Century, and over one thousand of his works have been collected. His fame in the West grew in the early 20th Century when Ezra Pound included a large number of his poems in the collection Cathay. Name this Chinese poet.

ANSWER: Li Po (accept Li Bai, Li Pai, or Rihaku) (prompt either half of name)

4. Current Events
This state’s prison health system is now being overseen by Clark Kelso, who has threatened to charge its Governor with contempt of court if it does not turn over two hundred fifty million dollars in extra funding. The state recently approved the funding of a multi-billion dollar bullet train, and some economists claim that its egg industry is about to go out of business due to a new ban on the use of cramped chicken cages. Due to a close vote on Proposition Eight, the state is now banning gay marriages. Name this state whose Governor is Arnold Schwarzenegger.

ANSWER: California

5. Biology
Like a phylum of bacteria they resemble, these organelles contain grana, which are stacks of thylakoids. They are similar to mitochondria, but they release oxygen rather than use it up. Name these structures that are found only in plant cells.

ANSWER: Chloroplast(s)
6. Music
It begins with Ecco ridente in cielo, an attempt by a nobleman disguised as a poor student to make a woman fall in love with him. The effort proves difficult because the woman is also being pursued by Bartolo. The nobleman and his former servant devise a plan to get into the woman’s house. Name this comic opera composed by Rossini that features Figaro.

ANSWER: (The) Barber of Seville (accept Almaviva, The Useless Precaution, Il barbiere di Siviglia, or L'inutile precauzione)

7. United States History
Along with her friends Nancy Cook, Marion Dickerman, and Caroline O’Day, she founded Val-Kill Furniture and bought Todhunter School, where she taught. In addition to these projects during the 1920s, she was a major supporter of Alfred E. Smith. During the 1930s, she started writing a newspaper column titled My Day, and during the 1940s she became the head of the United Nations Human Rights Commission. Name this woman who in 1905 married her fifth cousin once removed, a man who would become President.

ANSWER: (Eleanor) Roosevelt

8. Physics (10 Seconds)
One week after Orsted discovered that a compass needle was affected by electric current, this man published a paper explaining the phenomenon. A law named after him states that the path integral of a magnetic field equals the permeability times the electrical current in the loop. Name this early nineteenth century Frenchman after whom the SI unit of electric current is named.

ANSWER: (Andre-Marie) Ampere

9. Vocabulary
A political leader wrote an article describing this term in 1932. It was derived from his native word for bundle and symbolized by a bundle of rods, symbolizing strength through unity. One of its central goals was for men to become transcendent by making them members of a spiritual society, but the term now refers to oppressive systems and is associated with evil. Name this system of government that became a powerful force in Europe leading up to World War Two.

ANSWER: Fascism (or Fascist)
10. Religion/Mythology
This denomination formed in the middle of the 16th Century, developed the Dordrecht Confession of Faith in 1632, and had a well-known sect break away in 1693. The group Christian Peacemaker Teams was started after a challenge to this denomination to be as devoted to peace as armies are to war, and it also runs a major disaster service. Named after a Dutch priest, it originally was part of the Anabaptist movement. Identify this denomination that shares most of its principles with the Amish.

ANSWER: Mennonite(s)

11. Pop Culture
The pilot episode of this show aired in 2003 and featured a basketball match between the half-brothers Nathan and Lucas. Since then, Nathan has married Haley and become the father of James, while Lucas has become a novelist and basketball coach. Name this show on The CW that features Hilarie Burton, James Lafferty, and Chad Michael Murray.

ANSWER: One Tree Hill

12. Geometry/Trigonometry (30 Seconds)
If an angle is in the fourth quadrant, how many of the six basic trigonometric functions have positive values? The six basic functions are sine, cosine, tangent, cotangent, secant, and cosecant.

ANSWER: Two

13. Nonfiction
(Not to moderator: Pericles is pronounced PER-uh-klees and Thucydides is pronounced theo-SI-di-dees.) This work is broken down into eight books, ending with the Oligarchic Coup and the Battle of Cynossema. It includes several debates, including the ones at Camarina and Syracuse, as well as a debate in Athens known as the Mytilenian Debate. It also includes several speeches, most notably the public funeral oration for war dead given by Pericles. This work describes events which took place from 435 to 411 BCE. Name this work by Thucydides.

ANSWER: (The) History of the Peloponnesian War

14. British Literature
One of his pen names was Heliostrapolis, secretary to the Emperor of the Moon. While in prison, he wrote the mock epic Hymn to the Pillory. His last novel, Roxana: The Fortunate Mistress, was finished in 1724. His best-known novel was inspired in part by the story of Alexander Selkirk. Name this novelist who wrote Captain Singleton, Moll Flanders, and Robinson Crusoe.

ANSWER: (Daniel) Defoe
15. Geography/Earth Science/Astronomy
About seventy percent of them are classified as weak and last a few minutes, while about two percent of them are classified as violent and last about an hour. They often occur in the afternoon or early evening as the dry line moves East, and they typically move towards the Northeast. They are associated with cumuliform clouds and are measured by the Fujita Scale. Most of them occur in the United States, especially in a region stretching from South Dakota to Texas. Name these violent rotating columns of air.

ANSWER: Tornado(es)

16. Algebra (30 Seconds)
Find the y-coordinate of the vertex of the parabola given by equation $y = x^2 - 10x + 10$.

ANSWER: -15 (do not accept 15)

17. Art/Architecture
It was first displayed at a Paris Exposition which celebrated modern technology and was on display in New York City until 1981. Its painter did not allow it to be displayed in his native country until it had a democracy, and it was appropriately moved there several years after he died. The bottom of the picture shows a man who would be holding a sword if his arm were attached, and the left side shows a mother holding her dead baby. There is also a screaming horse in the center. Name this Pablo Picasso work portraying a massacre carried out in Spain.

ANSWER: Guernica

18. Chemistry
For Helium Three, it could have six sections, depending on whether it differentiates between spin-ordered and spin-disordered structures and on whether it differentiates between two possible superfluids. Most of them are much simpler and show the same basic shape, though the one for water is unusual due to the negative slope of its fusion curve. Name these graphs, which generally place pressure on the y-axis and temperature on the x-axis, that show when a particular substance is a solid, liquid, or gas.

ANSWER: Phase Diagram(s)

19. United States Literature
His plots include a feud between the Durkees and Tatums, a man renting a furnished room who would like to find Eloise Vashner, and a hobo named Soapy who is inspired by church music just a little too late. Of his two most famous plots, one involves Christmas presents while the other involves a ten-year-old boy who is kidnapped. Name this short story writer who wrote *The Gift of the Magi* and *The Ransom of Red Chief*.

ANSWER: O. Henry (accept (William Sydney) Porter, prompt Henry)
20. World History
Throughout much of his career, he worked well with his brother-in-law Viscount Townshend until their foreign policy disagreements led to Townshend’s retirement. He lost a lot of money in the South Sea Bubble, but his success in cleaning up the mess led to him becoming First Lord of the Treasury, Chancellor of the Exchequer, and Leader of the House of Commons. Name this leader under George the First and George the Second who is commonly considered the first Prime Minister of Great Britain.

ANSWER: (Robert) Walpole

Tiebreakers:
If you need to replace a question, take the corresponding question from the Replacement Packet rather than one of these questions. In case of a tie, use these questions in order until one is answered correctly.

(30 Seconds)
What is the area of a three four five right triangle?

ANSWER: 6

This novel begins with a message delivered to Dover that causes the recipient to go into shock, requiring the services of her servant Miss Pross. The message involves the phrase Recalled To Life and informs Lucie Manette that her father has actually been alive the past eighteen years. Lucie then travels to France and meets Monsieur and Madame Defarge. Name this famous novel by Charles Dickens set during the French Revolution.

ANSWER: (A) Tale of Two Cities

This country borders Iran, Jordan, Kuwait, Saudi Arabia, Syria, and Turkey. Name this country whose capital is Baghdad.

ANSWER: Iraq