



1. This man analyzed a van Gogh painting of a pair of peasant shoes in his book *The Origin of the Work of Art*. He argued for the reorganization of the university according to the Führerprinzip in his infamous address “The Self-Assertion of the German University.” In one of this man’s works, he claimed that humans should be viewed in terms of (\*) “being there” or Dasein (DAH-sine). For 10 points, name this German philosopher who was discredited by his enthusiasm for the Nazi Party after he wrote the existentialist classic *Being and Time*.

ANSWER: Martin Heidegger

030-12-69-08101

2. Lithotypes of this material include clarain and durain. Cannel is a non-banded type of this material. Vitrinite, liptinite and inertinite are three maceral groups found in this material. Heating this material in the absence of air can create coke. Ranks of this material include (\*) bituminous and anthracite and the precursor to this material's formation is peat. For 10 points, identify this combustible material composed primarily of carbon.

ANSWER: coal

066-12-69-08102

3. This composer’s seventh symphony has only one movement. This composer describes an old woman dancing with death as part of his incidental music to his brother-in-law’s play *Kuolema*, titled “Valse Triste.” An English horn plays the solo part in his (\*) *Swan of Tuonela*, a movement from his *Lemminkäinen Suite*. This composer’s most famous work was initially titled “Impromptu” due to Russian censorship of its strident nationalism. For 10 points, name the composer of *Finlandia*.

ANSWER: Jean Sibelius

140-12-69-08103

4. The title figure of one of this man's works was aggrieved when his infant twins died after drinking fevered milk. That figure created by this man dies after a fall from a spire. In addition to writing about Halvard Solness, this man created a work in which George (\*) Tesman's wife commits suicide. He also wrote about Krogstad seeking to blackmail the wife of Torvald over an old loan. For 10 points, identify this author of *The Master Builder*, *Hedda Gabler*, and *A Doll House*.

ANSWER: Henrik Ibsen [or Henrik Johan Ibsen]

189-12-69-08104

5. The female lead in this film has a dream in which she violently shakes a chain-link fence while watching children on a playground. The substitution of the name Wolfy for the dog Max in a phone conversation reveals the deaths of the foster parents Janelle and Todd. The hero of this film delivers the famous line, (\*) “Hasta la vista, baby,” before shattering the antagonist. For 10 points, name this film in which the liquid metal T-1000 tries to assassinate John Connor, the second James Cameron film starring Arnold Schwarzenegger as the title robot.

ANSWER: Terminator 2: Judgment Day [do not accept “The Terminator”]

014-12-69-08105

6. One group adopting this adjective used the trunk of a Renault to hide the body of Prime Minister Aldo Moro, whom they shot in 1978 during the "Years of Lead." Another group adopting this adjective fought at Milazzo and Voltturnus as part of the (\*) Expedition of the Thousand, which brought the Kingdom of the Two Sicilies into Victor Emmanuel II's unified Italy. For 10 points, name this adjective describing leftist terrorist "Brigades" and the shirts of Giuseppe Garibaldi's men, the official color of the Italian Communist Party.

ANSWER: red [or rosso; or Red Brigades; or Redshirts; or Camicie rosse; or Giubbe rosse; or Brigade Rosse]

104-12-69-08106

7. In a self-portrait, this man holds grapes and wears a laurel crown while suffering from jaundice. This painter of *Sick Bacchus* depicted a prominent horse standing over a fallen man reaching his arms into the air in his *The Conversion of St. Paul*. In this man's most famous work, two gamblers ignore the light from a window falling on a (\*) tax collector the instant that Jesus picks him to be an apostle. For 10 points, name this Italian baroque painter who used chiaroscuro in such works as *The Calling of St. Matthew*.

ANSWER: Michelangelo Merisi da Caravaggio

105-12-69-08107

8. One copy of this document was preserved in Mourt's Relation. The signers of this document were named in a work by Nathaniel Morton, the nephew of one of the writers of this document. This work was signed in Provincetown Harbor, and begins by acknowledging the sovereignty of James I. Forty-one male (\*) passengers signed this document, which William Bradford transcribed in his *Of Plymouth Plantation*. For 10 points, identify this document named after the ship that brought the Pilgrims to the New World.

ANSWER: Mayflower Compact

192-12-69-08108

9. Maple syrup urine disease is caused by the inability to metabolized branched ones. They can be classified into glucogenic or ketogenic based on metabolic properties. These chemicals, which include carnitine and taurine, almost exclusively occur in the L configuration. They have both (\*) three-letter and one-letter designations, and are brought to the ribosome by tRNA able to bind to the right codon during translation. For 10 points, name these building blocks of proteins.

ANSWER: amino acid

048-12-69-08109

10. This author wrote a short story in which a successful operator of laundries reunites with Judy Jones. He compared himself to a broken plate in his autobiographical "The Crack-Up." This author of "Winter Dreams" created the Hollywood mogul Monroe Stahr in his last novel. He described an alcoholic psychiatrist who marries his patient in (\*) *Tender Is the Night* and chronicled the 1920s in such short story collections as *Babylon Revisited* and *Tales of the Jazz Age*. For 10 points, name this author who created West Egg resident Nick Carraway in *The Great Gatsby*.

ANSWER: F. Scott Fitzgerald [or Francis Scott Key Fitzgerald]

019-12-69-08110

11. This hero's hair was of three colors, and he had seven fingers on each hand and seven toes on each foot. This man assaulted Forgall's palace to take his wife Emer after returning from his training with the warrior-woman Scathach (SKA-tak). In the *Tain*, he singlehandedly drives back the army of Queen Medb (MAYV), thus foiling the Cattle Raid of Cooley. Though originally named Setanta, this wielder of the (\*) Gae Bulg took a different name after he killed and personally replaced the guard dog of a smith. For 10 points, name this berserk warrior from Ulster in Celtic myth.

ANSWER: Cuchulainn (koo-HOO-lin) [or Setanta before it is read]

080-12-69-08111

12. In a coordinate system named for this object, the volume can be found by integrating with respect to  $\rho$   $d\rho$   $d\phi$   $dz$ . That coordinate system adds a height  $z$  to the polar coordinate system. This shape, not a disc, is used when finding the volume of a solid of revolution with the (\*) shell method. The volume of this object is equal to  $\pi$  times radius squared times height. For 10 points, name this solid with two connected circular faces that lie on an axis.

ANSWER: cylinder

066-12-69-08112

13. Foreign visitors are often told that this country operates on "rubber time," illustrating the relaxed approach to day-to-day activities. This country is home to a form of shadow puppet theater known as wayang kulit and a traditional musical ensemble known as gamelan. This country is home to the Borobudur stupa. This most populous (\*) Muslim majority country includes the "spice islands," or Moluccas, as well as Bali and Sumatra. For 10 points, name this country, most of whose inhabitants live on the island of Java.

ANSWER: Republic of Indonesia [or Republik Indonesia]

020-12-69-08113

14. This man's bizarre foray into architecture-inspired literature resulted in his *Poem of the Right Angle*. This man designed several gigantic "open hand" sculptures. This man collaborated with Oscar Niemeyer on the UN Headquarters in New York and outlined his "five points" in the tract (\*) *Towards a New Architecture*. He created many buildings in the planned city of Chandigarh in India and exemplified the International Style with a house he built on the outskirts of Paris. For 10 points, name this French architect of the Villa Savoye.

ANSWER: Le Corbusier [accept Charles-Edouard Jeanneret]

141-12-69-08114

15. This language's front high vowel can be written in subscript under other vowels. This language's conjugations allow for aorist optative verbs, and it uses a backwards apostrophe to mark an added  $h$  sound before a vowel, known as "rough breathing." Its simple (\*) *koine* dialect was used to write the New Testament, and its older dialects include Attic. For 10 points, name this ancient language whose older Ionic form was used to write the Homeric epics.

ANSWER: Ancient Greek [or Hellenike]

104-12-69-08115

16. One of this author's characters abandons his wife to marry the dancer Warda after he falls in love with a singer named Margaret. A restaurant owner named Tarzan appears in this man's novel about Said (sie-EED), *The Thief and the Dogs*. This man created the disillusioned (\*) Kamal, the youngest son of Amina and Ahmad Abd al-Jawad, who are important figures in the family central to his novels *Sugar Street*, *Palace of Desire*, and *Palace Walk*. For 10 points, name this Egyptian author who wrote *The Cairo Trilogy*.

ANSWER: Naguib Mahfouz [or Najib Mahfuz]

192-12-69-08116

17. **This king's coronation was marred by a massacre of Jews, but he punished those responsible before leaving on a campaign in which he helped Phillip Augustus besiege Tyre. This king was killed by an arrow fired from the castle of Chalus. After the death of his father, (\*) Henry II, this later-prisoner of Leopold V of Austria led the English forces in the Third Crusade. For 10 points, identify this brother of King John, renowned for his bravery.**

ANSWER: **Richard I** of England [or **Richard the Lionhearted**; or **Richard Couer de Lion**; prompt on **Richard**]

195-12-69-08117

18. **This equation can be used to describe the boundaries between different sections of a Pourbaix (poor-BAY) diagram. This equation was generalized to multiple ion species by Goldman. A factor of temperature times the ideal gas constant divided by (\*) Faraday's constant times the number of electrons transferred appears in this equation, where it is multiplied by the natural logarithm of the reaction quotient. For 10 points, name this equation used to determine the reduction potential of a half-cell.**

ANSWER: **Nernst** equation

127-12-69-08118

19. **This novelist translated David Strauss's *The Life of Jesus Critically Examined* and Ludwig Feuerbach's *The Essence of Christianity*. *The Key to All Mythologies* is a work written by Edward Casaubon, a character in a novel by this author in which he marries (\*) Dorothea Brooke. In another novel by this author, the body of Dunstan Cass is found clutching the title character's gold at the bottom of a quarry. For 10 points, name this female British author of *Middlemarch* and *Silas Marner*.**

ANSWER: George **Eliot** [or Mary Ann **Evans**]

030-12-69-08119

20. **This leader sent William Vans Murray to negotiate the Treaty of Mortefontaine. This man defended Thomas Preston in court despite his outrage at the Boston Massacre. This man appointed the "midnight judges" as President, in which role he oversaw the Quasi-War with France and pushed for the (\*) Alien and Sedition Acts before his Vice President's Democratic-Republicans swept him out of office. For 10 points, name this last Federalist President, a Massachusetts man whose son was also President.**

ANSWER: John **Adams**

104-12-69-08120

21. **Inelastic scattering of these particles by a free charged particle is known as Compton scattering. An electron and positron are created from these particles in pair production. The momentum of this particle is the quotient of Planck's constant and wavelength. The energy of this particle can be expressed as the product of Planck's constant and frequency, and it (\*) mediates the electromagnetic force. For 10 points, identify this massless particle which is the quantum of light.**

ANSWER: **photons**

189-12-69-08121

22. **Heinrich Kramer and Jacob Sprenger wrote a manual for identifying these people called the *Malleus Maleficarum*. In England, Matthew Hopkins attempted to find these people by poking at skin deformities. Another common test for them involved (\*) plunging a person accused of being one into the water to see if he or she floated, symbolizing a rejection of baptism. For 10 points, identify these people accused during a mania in sixteenth century Europe, who were also subject to trials in Salem, Massachusetts.**

ANSWER: people accused of being **witches** [accept equivalent answers]

019-12-69-08122

23. While in Ossenburger Hall, this character is annoyed by Ackley, who constantly picks at at his acne. He later admits that there is no “nice and peaceful place” where people will not write profane graffiti under his nose. This character asks “Where do the ducks go in the winter?” to a cab driver and is beaten by a (\*) pimp named Maurice. This boy finds his sister Phoebe after leaving Pencey Prep and calls many adults “phonies” in his journeys around New York. For 10 points, name this sixteen-year-old narrator of J. D. Salinger’s *The Catcher in the Rye*.

ANSWER: Holden Caulfield [or Holden Caulfield]

104-12-69-08123



1. Answer some questions about simple harmonic oscillators. For 10 points each:

[10] For a simple harmonic oscillator, the maximum displacement, or greatest distance from the equilibrium point, is this quantity. It is symbolized A.

ANSWER: **amplitude**

[10] This example of a simple harmonic oscillator comes in a variety named for Leon Foucault. Problems involving these systems can be simplified using the small-angle approximation.

ANSWER: **pendulums**

[10] This value for a simple harmonic oscillator is proportional to the square root of stiffness over mass. The maximum velocity of a simple harmonic oscillator is proportional to this quantity and amplitude.

ANSWER: **frequency** [prompt on **f**]

189-12-69-08201

2. This condition is maintained by high barriers to entry. For 10 points each:

[10] Name this economic condition in which only one firm sells a given product with no competition.

ANSWER: **monopoly**

[10] Monopolies have sufficient market power to enact this policy of selling identical goods to different consumers at different rates.

ANSWER: **price discrimination**

[10] This type of economic inefficiency can also occur in a monopoly. This phenomenon is the loss in utility to consumers when a monopoly prices its goods higher than it would in a competitive environment.

ANSWER: **deadweight loss**

080-12-69-08202

3. Name some visionary Catholic saints, for 10 points each.

[10] This Italian saint claimed to have had a “mystical marriage” with Jesus Christ. She convinced Gregory XI to move the Papacy from Avignon back to Rome and shares her name with a saint from Alexandria who was tortured on a namesake wheel.

ANSWER: Saint **Catherine** of Siena [or Caterina **Benincasa**]

[10] This saint claimed that Saints Margaret, Catherine, and Michael instructed her to chase the English out of France in the Hundred Years’ War.

ANSWER: Saint **Joan** of Arc [or **Jeanne** d’Arc]

[10] Visions inspired this Spanish nobleman to write the *Spiritual Exercises*, and to seek Papal approval for the order he founded, the Jesuits.

ANSWER: Saint **Ignatius** of Loyola [or **Ignacio**]

191-12-69-08203

4. This author wrote about the destruction of the last Neanderthals in *The Inheritors*. For 10 points each:

[10] Identify this British author who also wrote a work in which a conch shell blown by one character represents civilization. That work by this author includes the characters Simon and Piggy.

ANSWER: William **Golding** [or William Gerald **Golding**]

[10] This is the aforementioned work about the instability among a group of boys stranded on an island. In this novel, Ralph feuds with Jack.

ANSWER: **Lord of the Flies**

[10] This item, originally owned by Piggy, is used by the boys in *Lord of the Flies* to start a fire. Jack's followers later steal this item.

ANSWER: a pair of **glasses**

189-12-69-08204

5. Name these ancient Greek city-states, for 10 points each.

[10] This city always had two lines of kings, the Agiads and the Eurypontids, and put all males through the rigorous military training regimen known as the agoge (ah-GO-jay).

ANSWER: **Sparta** [or **Lacedaemon**]

[10] In the seventh century BCE, this city's Bacchiad oligarchy was overthrown by Cypselus, who, along with his son Periander, exploited its strategic location at the center of trade routes.

ANSWER: **Corinth** [or **Korinthos**]

[10] This onetime Corinthian colony on the island of Sicily was ruled by tyrants such as Dionysus II, who invited Plato to reside at his court.

ANSWER: **Syracuse** [or **Siracusa**]

019-12-69-08205

6. The Swedish government supported its sterilization of over 60,000 people with the theories from this field of study. For 10 points each:

[10] Name this field, which acquired its name in Francis Galton's *Inquiries into Human Faculty and its Development*.

ANSWER: **eugenics**

[10] Galton was a cousin of this author of *The Origin of Species*. This man's voyage on the *Beagle* gave him the evidence for his theory of natural selection.

ANSWER: Charles **Darwin**

[10] Galton also defined and found a way to measure this quantity, which measures the degree to which one variable changes with another. A value close to one or negative one for this quantity may suggest, but does not imply, causation.

ANSWER: **correlation**

121-12-69-08206

7. This work was used in a Michael Fokine-choreographed ballet that was written for Anna Pavlova. For 10 points each:

[10] Name this penultimate section of a Camille Saint-Saens work that is written for two pianos and a solo cello, which represents the title bird gracefully gliding on the water.

ANSWER: "The **Swan**" [or "Le **cygne**"]

[10] "The Swan" was the only part of this aforementioned work that Saint-Saens allowed to be played in his lifetime. This work contains sections such as "Tortoises" and "The Elephant."

ANSWER: *The **Carnival of the Animals*** [or *Le **carnaval des animaux***]

[10] Saint-Saens's third symphony has a nickname featuring this instrument, which is used in two of its four movements. Dietrich Buxtehude was a notable player of it.

ANSWER: pipe **organ**

192-12-69-08207

8. This disorder is caused by structural defects in the brain which allow large collections of neurons to fire in sync with each other, causing convulsions. For 10 points each:

[10] Name this neurological disorder, in which patients have unprovoked seizures.

ANSWER: **epilepsy**

[10] This technique is used to help diagnose epilepsy. In it, the patient has several suction cups stuck to their head, which reads their neural oscillations.

ANSWER: **EEG** [or **electroencephalogram**]

[10] This unusual type of seizure lasts for a few minutes. The sufferer appears to drift off and stare at nothing, often in the middle of a sentence.

ANSWER: **absence** seizure

048-12-69-08208

9. This phrase was used in a sentence regarding "evils that the United States Congress has the right to prevent" in a case about a Socialist Party member distributing leaflets against the draft during World War I. For 10 points each:

[10] Identify this four-word phrase that names a test for restricting speech, which the Supreme Court started using in *Schenck v. U.S.* alongside the "bad tendency" test.

ANSWER: **"clear and present danger"**

[10] The phrase "clear and present danger" was coined by this Justice. The son of a noted poet, he spent thirty years on the court, often writing eloquent dissents.

ANSWER: Oliver Wendell **Holmes**, Jr.

[10] Also in *Schenck*, Holmes coined a metaphor for dangerous speech, referring to a hypothetical person who "falsely shouts 'fire'" in a crowded one of these places.

ANSWER: **theaters**

019-12-69-08209

10. The alcoholic Simon Stimson directs a choir in this play. For 10 points each:

[10] Name this play set in Grover's Corners, New Hampshire, which sees George Gibbs and Emily Webb grow up together and eventually get married.

ANSWER: **Our Town**

[10] *Our Town* is a play by this writer, who wrote about five people dying on the title structure in *The Bridge of San Luis Rey*.

ANSWER: Thornton **Wilder** [or Thornton Niven **Wilder**]

[10] This character from *The Bridge of San Luis Rey* investigates the deaths and attempts to determine their cause. His published work is proclaimed heresy and he is eventually burned at the stake.

ANSWER: Brother **Juniper**

192-12-69-08210

11. Identify some Japanese art forms, for 10 points each.

[10] This art form was used by Sadako Sasaki, a girl who fell short of her attempt to wish away her leukemia by folding one thousand cranes.

ANSWER: **origami**

[10] A Buddhist ritual honoring the dead morphed into this art form, the arrangement of several flowers in a single container.

ANSWER: **ikebana**

[10] A less common version of this ritual uses sencha. This ritual occurs in special purpose tatami-floored rooms.

ANSWER: **tea** ceremony [or synonyms for ceremony; or **chanoyu**; or **chado**; or **sado**; or **otemae**; or **chakai**; or **chaji**]

020-12-69-08211



12. Name some characters from Homer's *Odyssey* for 10 points each:

[10] This wife of Odysseus stays faithful to him during his twenty-year absence, staving off her many suitors by unweaving Laertes's shroud every night.

ANSWER: **Penelope**

[10] At the beginning of the *Odyssey*, Odysseus is trapped on the island of this sea nymph. Zeus sends Hermes to tell her to let Odysseus go.

ANSWER: **Calypso**

[10] After their encounter with Aeolus, Odysseus and his men find themselves in Telepylus, the city of this race of giant cannibals who destroy several of their ships with huge rocks.

ANSWER: **Laestrygonians** (less-truh-GO-nee-inz) [or **Laestrygones**; accept equivalent translations]

196-12-69-08212

13. In this novel, Sobakevitch asks for an exorbitant amount of money in exchange for the title entities. For 10 points each:

[10] Name this work in which Chichikov purchases the title serfs from their landowners in order to exploit a loophole in the Russian tax system.

ANSWER: **Dead Souls** [or **Myortvyje Dushi**]

[10] *Dead Souls* is a work by this Russian author of *Taras Bulba* and *The Inspector-General*.

ANSWER: Nikolai **Gogol**

[10] Gogol wrote a work about one of these objects "of a Madman." A notable work of this type was written by Samuel Pepys.

ANSWER: **diary**

192-12-69-08213

14. Answer these questions about Britain's experience as the first nation to undergo the Industrial Revolution, for 10 points each.

[10] James Watt added a "condenser" to perfect these coal-fired devices in late eighteenth-century Britain. They allowed factories to be built without using riverside water-wheels for power.

ANSWER: **steam engines**

[10] In the 1810s, this movement of former lace workers broke mechanical loom equipment to express their anger at being left unemployed by industrial advances.

ANSWER: **Luddites** [or **Luddism**]

[10] Joseph Paxton designed this London building to house several industrial triumphs during the Great Exhibition of 1851.

ANSWER: **Crystal Palace**

104-12-69-08214

15. This region's tourist attractions include the wildlife reserve on Valdes Peninsula and the Perito Moreno glacier, which looks blue due to oxygen trapped in the ice. For 10 points each:

[10] Name this region which includes one country's Chubut and Rio Negro provinces. Its tall Tehuelche people were thought to be giants by European explorers.

ANSWER: **Patagonia**

[10] Most of Patagonia is in this second-largest South American country, whose population included many Nazis in hiding.

ANSWER: **Argentina** [or **Argentine** Republic; or Republica **Argentina**]

[10] North of Patagonia, the Argentine *pampas* are home to these herdsmen, who are idolized in South American fiction much like the US's cowboys.

ANSWER: **gauchos**

104-12-69-08215

16. This character agrees to marry Marcellina if he defaults on his debts. For 10 points each:  
[10] Name this character who weds Susanna and, in another opera, aids his master Count Almaviva in marrying Rosina.

ANSWER: **Figaro** [or the **barber of Seville**]

[10] Figaro first appears in *The Barber of Seville*, which was composed by this Italian, also famous for the overture to *William Tell*.

ANSWER: Gioachino Antonio **Rossini**

[10] Both Rossini's *Barber of Seville* and Mozart's *The Marriage of Figaro* fall into this genre of comic opera, contrasted with opera seria.

ANSWER: **opera buffa** [or **opera buffe**; or **opera buffo**]

020-12-69-08216

17. Polar aprotic ones like tetrahydrofuran and dimethylformamide are commonly used when conducting SN2 reactions, and they are broadly classified as polar and nonpolar. For 10 points each:

[10] Name these substances, into which a solute is dissolved. Water is often considered a “universal” one.

ANSWER: **solvent**

[10] According to the solubility rules, all halides of this metal are insoluble. Its nitrate is used in photography, and this metal also forms a namesake mirror as part of Tollens' reagent when reacted with an aldehyde.

ANSWER: **silver** or **Ag**

[10] A common nonpolar solvent consists of a mix of isomers of this alkane, which gets its name from the fact it has six carbon atoms. It has formula C<sub>6</sub>H<sub>14</sub>, and its cyclized form has chair conformations.

ANSWER: **hexane**

048-12-69-08217

18. He takes interest in an unfortunate sailor who abandoned the *Patna*. For 10 points each:

[10] Name this man who befriends the title character in *Lord Jim* and narrates most of the novel.

ANSWER: Charles **Marlow**

[10] This author wrote *Lord Jim* as well as *Nostromo* and “The Secret Sharer.”

ANSWER: Joseph **Conrad** [or Józef Teodor **Konrad** Korzeniowski]

[10] Conrad was a great admirer of this American novelist of *Daisy Miller* and *The Turn of the Screw*.

ANSWER: Henry **James**

196-12-69-08218

19. The first translator of these objects into English, James Prinsep, equated their importance to that of the Ten Commandments. For 10 points each:

[10] Name these objects scattered throughout South Asia that relate subjects such as Ashoka's remorse at conquering Kalinga or his exposition of the word *dhamma*.

ANSWER: **Edicts** of Ashoka [or Rock **Edicts**; or Pillar **Edicts**]

[10] The Edicts were spread during the third century BCE by Ashoka, a ruler from this Indian empire founded by Chandragupta and centered at Pataliputra.

ANSWER: **Mauryan** Empire

[10] Chandragupta started the Mauryan Dynasty shortly after the death of this figure, who invaded India from the northwest in 327 BCE.

ANSWER: **Alexander the Great** [or **Alexander III** of Macedonia; prompt on **Alexander**]

192-12-69-08219

20. Lesser-known members of this movement included the creator of the *Merzbau*, Kurt Schwitters. For 10 points each:

[10] Name this 20th century artistic movement championed by Marcel Duchamp, which satirized high culture and took a name meaning "hobbyhorse."

ANSWER: **Dada**

[10] Duchamp coined this term for works like *Fountain* and *Bicycle Wheel*, which were common objects like urinals that he made into sculptures.

ANSWER: **readymades**

[10] This "hilarious" Duchamp work allegedly depicts a sexual encounter between the first title character and the nine "malic molds", all wedged between two fractured sheets of glass.

ANSWER: *The **Bride Stripped Bare by her Bachelors, Even*** [or *La **Mariee Mise a nu par su Celibataires, Meme***; or *The **Large Glass***; or *La **Grand Verre***]

080-12-69-08220

21. Carl Friedrich Gauss treated these numbers as points on a plane, with addition and multiplication equivalent to translation and rotation. For 10 points each:

[10] Name this set of numbers, which consist of real and imaginary parts.

ANSWER: **complex** numbers [do not accept "imaginary numbers"]

[10] The square root of the product of a complex number and its conjugate gives this value. On the complex plane, this value is the distance from the number and the origin.

ANSWER: **absolute value** [or **magnitude**; or **modulus**]

[10] This theorem states that for every constant polynomial with complex coefficients, there is at least one complex root.

ANSWER: **fundamental theorem of algebra**

121-12-69-08221