



Question #1: Literature – British Literature

10 points

<p>Growing up, this character would get in trouble for stealing ducks and apples to give to the servant Black George. This character initially admitted to being the father of Molly Seagrim’s child, but left her upon learning of her affairs, though he ended up having an affair with Mrs. Waters. He is thrown in jail for wounding Fitzpatrick in a duel, and is prevented from marrying Sophia Western by Blifil. As a baby, this person was found in Squire Allworthy’s bed after being abandoned by his parents. Name this “foundling”, the title character of a Henry Fielding novel.</p>	<p><u>Tom Jones</u> [accept either]</p>
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Question #2: Science – Biology

10 points

<p>Some of the proteins in this structure make up the KMN network. The assembly of proteins in this structure is influenced by centromere [“SENT-row-mere”] protein T, and research is ongoing to determine how that protein works with centromere proteins A and C. One way that these structures help mitosis [“my-TOE-sis”] is by delaying the onset of anaphase [“Anna-phase”]. These structures are created during prometaphase [“PRO-meta-phase”] and attach to their microtubules, which are different than the microtubules of the spindle. Name these structures that attach chromatids to microtubules at the spindle.</p>	<p>kinetochores [kin-ET-oh-korz]</p>
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Question #3: Miscellaneous – Sports

10 points

<p>In 1970, this event ended with a collision that injured Ray Fosse [FAH-see]. Randy Johnson winked at John Kruk after scaring him during the 1993 version. The record for most appearances in this event is 25, helped by the fact that from 1959 to 1962 it was held twice per year. In 2002 this game ended in a 7–7 tie, leading to the decision that from 2003 to 2016, its outcome would determine a future home-field advantage. The festivities surrounding this game include a Home Run Derby. Name this game featuring the best players in the National and American Leagues.</p>	<p>Major League Baseball <u>All-Star</u> Game or MLB <u>All-Star</u> Game</p>
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Question #4: Social Studies – World History

10 points

<p>This king used General Giles Daubeney to capture Perkin Warbeck, who had gained a following pretending to be Richard of Shrewsbury. This king then signed the <i>Intercursus Malus</i> with Philip IV, Duke of Burgundy, opening up trade. When this person was young, he was taken to France by his Uncle Jasper after the Battle of Tewkesbury. When this person became king, he married Elizabeth of York, which stabilized the monarchy. Name this king who gained power in 1485 when Richard III was killed at the Battle of Bosworth Field, starting the Tudor dynasty.</p>	<p><u>Henry VII</u> [accept <u>Henry Tudor</u> before “Tudor”; prompt on <u>Henry</u>]</p>
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Question #5: Mathematics – Math Concepts

10 points

If a set has discrete topology, every point is this type of set. A compact set is one for which every cover using this kind of set has a finite subset that also covers the original set. In ordinary **Euclidean** [yoo-KLID-ee-un] space, a set has this property if it contains some neighborhood around each of its points. The mean value theorem requires that the function be differentiable over an interval with this property; such intervals do not include their endpoints. Give this term for an interval that is written with parentheses rather than square brackets.

open set or openness

Question #6: Literature – U.S. Literature

10 points

In its preface, the author described this book's original title as one "which the author had not the power to reject or happiness to approve". Parts of this book started out as installments in *The Illustrated San Francisco Wasp*, and were temporarily lost during the San Francisco earthquake. This book calls the House Fly the head of the animal kingdom, and compares Zeus to "God, Gold, Mob, and Dog". An initial effort toward this book was called "Webster Revised", and much of this book was published under the title *The Cynic's Word Book*. Name this satirical reference book by Ambrose Bierce.

*The **Devil's Dictionary***
[accept *The **Cynic's Word Book*** before
"*Cynic's*"]



Question #7: Science – Physics

10 points per part

When a photon scatters elastically it is Thomson scattering; when the photon loses energy to the charged particle, it is known as this type of scattering or effect.		
1	Name this effect in which the change in wavelength is proportional to 1 minus the cosine of the scattering angle.	<u>Compton</u> effect
2	The Compton effect was discovered by experiments on this type of radiation discovered by Wilhelm Röntgen [VIL-helm RENT-gun] .	<u>X-rays</u>
3	This formula gives the differential cross-section for Compton scattering.	<u>Klein-Nishina</u> formula

Question #8: Science – Physics

10 points per part

Cesium is used in atomic clocks because its inner-core electrons do not exhibit this phenomenon.		
1	Give the two-word term for this splitting of spectral lines due in large part to the interactions of two quantum numbers and to relativistic corrections to the Schrödinger equation. This phenomenon does not involve an external field.	(hyper) <u>fine structure</u>
2	The existence of the fine structure provided early evidence that orbiting electrons had a value of positive or negative one-half for this value.	<u>spin</u> quantum number [prompt on <u>s</u> or intrinsic <u>angular momentum</u>]
3	In this effect, the spectrum is split further due to the presence of an external magnetic field.	<u>Zeeman [ZEH-mahn or ZAY-mun]</u> effect



Question #9: Literature – World Literature

10 points per part

Creon went to this city to convince a former king to return, in order to garner a blessing.		
1	Name this city where Oedipus asked for Theseus's [THEE-see-uss'z] permission to die, and warned Theseus about Thebes [theebz].	<u>Colonus</u> [koh-LOH-nuss] [prompt on <u>Athens</u> or <u>Athína</u>]
2	Oedipus berated this man, his son, for not doing more to fight the king's banishment from Thebes. Oedipus warned him that he would both kill and be killed by his brother.	<u>Polynices</u> [pah-lee-"NICE"-eez]
3	Later, upon hearing this sound and the Chorus's reaction to it, Oedipus decides to perform the necessary rites so that his blessing may be granted.	<u>thunder</u>

Question #10: Literature – World Literature

10 points per part

In this novel, Tom marries Gerda and becomes a senator; he also tries to prevent his brother Christian from marrying Aline, who has three illegitimate children.		
1	Name this novel that, though it does not mention the name of the city, follows a family in Lübeck [LUR-bek].	<u>Buddenbrooks</u>
2	<i>Buddenbrooks</i> is the first novel by this author of <i>The Magic Mountain</i> and <i>Death in Venice</i> .	(Paul) <u>Thomas Mann</u> [toh-mahss mahn]
3	In <i>Buddenbrooks</i> , Tom and Christian's mother gives birth to a girl by this name who later dies from tuberculosis. A woman with the same name is engaged to Nathanael and the sister of Lothar in E. T. A. Hoffmann's <i>The Sandman</i> .	<u>Clara</u> or <u>Klara</u>



Question #11: Social Studies – Geography

10 points per part

This state is nicknamed “The Centennial State”, and one of its towns is Centennial.		
1	Name this state home to the U.S. Air Force Academy and Rocky Mountain National Park.	<u>Colorado</u>
2	This Colorado ski resort is the largest section of the Aspen complex. It has a gondola lift called Sky Cab that is better known as “Skittles” due to its colors.	<u>Snowmass</u>
3	This national park in southwest Colorado includes Cliff Palace and many other remains of Pueblo [PWEB-loh] culture.	<u>Mesa Verde National Park</u>

Question #12: Social Studies – Geography

10 points per part

Many people in the Engadine [en-gah-deen] valley in this country’s Grisons [gree-zawn] canton speak the Romansh language.		
1	Name this European country. Though it has no official capital, its government is headquartered in Bern.	<u>Switzerland</u> [or <u>Swiss Confederation</u> or <u>Schweiz</u> or <u>Schweizerische Eidgenossenschaft</u> or Confederation <u>Suisse</u>]
2	Name the third-most-populous city in Switzerland. It is very near the point where the borders of Switzerland, France, and Germany all meet.	<u>Basel</u> [or <u>Basle</u> or <u>Bâle</u> or <u>Basilea</u>]
3	Name the most populous city in Switzerland. It contains the headquarters of FIFA [FEE-fuh] as well as several banks, including Credit Suisse.	<u>Zürich</u> [or <u>Züri</u> or <u>Zurigo</u> or <u>Turitg</u>]



Question #13: Mathematics – Probability

10 points per part

In 1959, Martin Gardner wrote a paper titled <i>The Two Children Problem</i> .		
1	If a couple has two children, and the older one is a girl, find the probability that both children are girls.	<u>1/2</u> or <u>0.5</u> or 50%
2	If a couple has two children, and at least one of them is a girl, find the probability that both children are girls.	<u>1/3</u> or <u>0.3 repeating</u>
3	Partly because both involve conditional probability, the two-children problem is often compared to a problem involving picking prizes from behind three doors. That problem is named for this former <i>Let's Make a Deal</i> host.	Monty <u>Hall</u> [or Monte <u>Halparin</u>]

Question #14: Mathematics – Probability

10 points per part

Two random numbers between 0 and 1 are chosen uniformly at random.		
1	Find the probability that the second number chosen is between the first number and twice the first number.	<u>1/4</u> or <u>0.25</u>
2	One way to solve that problem is to start with a square in the coordinate plane including all points whose x - and y -coordinates are both between 0 and 1, and then looking at the area that is both within the square and between the lines $y = x$ and $y = 2x$. What shape is that region?	(obtuse or scalene) <u>triangle</u> or <u>triangular</u>
3	Using the same method, find the probability that the second number is between the first number and three times the first number.	<u>1/3</u> or <u>0.3 repeating</u>



Question #15: Social Studies – Economics

10 points

The growth in this quantity is measured using the Solow residual, which uses the multifactor type of this quantity in its formula. John Bates Clark and **Knut Wicksell** [kuh-NOOT vik-SELL] developed a theory of wages based on the marginal value of this quantity. Paul **Krugman** [KROOG-mun] said that in the long run, this quantity is “almost everything”. The Solow computer paradox states that this quantity is not affected by information technology investments. The last 40 years are unusual in that this quantity has increased significantly while worker pay has not. Name this efficiency measure of output divided by input, which is commonly calculated as GDP divided by the number of hours worked.

productivity [accept more specific answers that contain **productivity**]

Question #16: Science – Chemistry

10 points

A compound combining nickel and this organic group is used to purify nickel in the Mond process. This organic group is removed in a Wolff-Kishner reduction. Moving a hydrogen atom from this group produces **enols** [EE-nols]. **Phosgene** [FAWSS-jeen] is equivalent to this group with two chloride atoms. **Amides** [“AIM-ides”] have a partial double bond between nitrogen and the carbon atom in this group. This group is in the middle of a carbon chain in **ketones** [“key-tones”] and at the end of a carbon chain in **aldehydes** [AL-duh-“hides”]. Name this organic group in which oxygen is double-bonded to carbon.

carbonyl(s)
[“CAR-bun-ill”(z)]
[prompt on **ketones** or **aldehydes** before they are mentioned]



Question #17: Fine Arts – Classical Music & Opera

10 points

This composer was encouraged by the flautist Paul Taffanel to write his *Petite Symphonie*. This composer, who is not Schubert, was encouraged to listen to J. S. Bach by Felix and Fanny Mendelssohn. He then took a part of *The Well-Tempered Klavier* and developed it into his *Ave Maria*. This French composer included the duet “Ah! **Ne fuis pas encore!** [neh fwee pah awn-kor]” in his opera *Roméo et Juliette*. In another opera by this composer, the title character sings, “I greet you, home chaste and pure,” after saying he is at the feet of Marguerite. Name this composer of the opera *Faust*.

**Charles(-François)
Gounod** [sharl goo-noh]

Question #18: Social Studies – U.S. History

10 points

This company started out as the Pennsylvania Fiscal Agency. Long after its name changed, it was the subject of the article “The King Of Frauds” in *The Sun*. This company’s name was changed by Thomas C. Durant, who headed it until he was ousted by Oakes Ames. Ames used this company to finance the Union Pacific Railroad, using his connections to procure exorbitant contracts. Schuyler Colfax bought stock in this company at a discounted price, leading him to be dropped from the presidential ticket in 1872. Name this company that was the namesake of a scandal used against President Grant.

Crédit Mobilier of
America



Question #19: Science – Astronomy

10 points

This letter is used to represent the inner part of the Sun's corona, whose spectrum appears to have no absorption lines. The other two parts of the corona are represented by the letters 'F' and 'E'. This letter also denotes the spectral class of orange stars, which are slightly smaller than G-class stars like our Sun. Research by James Cronin and Val Fitch about mesons named for this letter explains why there is more matter than antimatter in the universe. Those particles and pions ["PIE"-ahnz] are produced from cosmic rays and decay into muons. Give this letter used to name the first shell, which has an s orbital, in an atom.

K

Question #20: Literature – World Literature

10 points

In this novel, due to the frequent booby-trapping of instruments, a sapper is drawn to a villa where a nurse is playing piano. The protagonist of this novel, who is often in a villa room that has trees painted on its walls and ceiling, owns a copy of Herodotus' *Histories* that he has annotated. In this novel, a morphine-addicted thief tries to steal a camera, and his thumbs are cut off. Kip falls for Hana, who is caring for this novel's title character, Laszlo de Almásy [LAHSH-loh day ahl-mah-see]. Name this novel by Michael Ondaatje [ahn-DAHT-chee].

The English Patient



Question #21: Social Studies – U.S. History

10 points per part

This transaction involved land stretching from the Gulf of Mexico up to part of what is now Alberta and Saskatchewan.		
1	Name this 1803 deal between the United States and France.	<u>Louisiana Purchase</u>
2	James Monroe and this minister to France negotiated the Louisiana Purchase for the United States. As Chancellor of New York, this person had sworn in President Washington.	Robert <u>Livingston</u>
3	Though initially opposed to the deal, this French foreign minister is the person who originally told Livingston that France could sell the entire territory. This Frenchman later represented France at the Congress of Vienna.	Charles (Maurice de) <u>Talleyrand</u> (-Périgord)

Question #22: Social Studies – U.S. History

10 points per part

This program was part of President Franklin Roosevelt’s vision of the United States being an “arsenal of democracy”.		
1	Name this program in which the United States gave supplies and weapons to allies in exchange for getting to use army and naval bases.	<u>Lend-Lease</u> [prompt on An Act to <u>Promote the Defense</u> of the United States]
2	The Lend-Lease program was first overseen by this person. He later became Secretary of State and then our first Ambassador to the U.N.	Edward (Reilly) <u>Stettinius</u> [steh-TIN-ee-uss] Jr.
3	The Lend-Lease Act contradicted this series of U.S. laws, passed during the 1930s, that prevented arms trading with countries at war.	<u>Neutrality</u> Acts



Question #23: Science – Chemistry

10 points per part

Molecules of this type contain at least one triple bond between carbon atoms.		
1	Name this class of hydrocarbons.	alkynes [long “I” sound] [do not accept “alkane(s)” or “alkene(s)”]
2	This is the number of carbon atoms in a molecule of acetylene [uh-SEE-tuh-leen]. It also has this number of hydrogen atoms.	two carbon molecules
3	The second simplest alkyne is propyne [“PRO-pyne”], which is a constitutional isomer of this simplest allene [AL-een].	propadiene [PRO-puh-“DIE”-een]

Question #24: Science – Chemistry

10 points per part

These dipole [“DIE-pole”]-dipole attractions are significantly stronger than other dipole-dipole attractions.		
1	Identify these so-called “bonds” named for the element that is attracted to very electronegative elements.	hydrogen bonds [or hydrogen bonding; prompt on H -bonds or H -bonding]
2	Hydrogen bonding explains the high viscosity of molecules such as this lipid backbone whose chemical formula is C ₃ H ₈ O ₃ .	glycerol [GLISS-ur-awl]
3	Hydrogen bonding also explains the properties of this chemical used in rocket fuels. This molecule combines with oxygen to produce a molecule of nitrogen and two molecules of water.	hydrazine [“HIDE”-ruh-zeen] [accept N₂H₄]



Question #25: Literature – U.S. Literature

10 points per part

This object made its owner’s followers think the owner could discover their innermost thoughts.		
1	Name this object made of “two folds of crêpe”, which its owner saw being worn by everyone who could see.	the minister’s black <u>veil</u>
2	This author wrote “The Minister’s Black Veil.”	Nathaniel <u>Hawthorne</u> [or Nathaniel <u>Hathorne</u>]
3	At the conclusion of “The Minister’s Black Veil”, it is noted that a reverend from this state wore a black veil on account of accidentally killing a friend. Sarah Orne Jewett set much of her fiction in this state.	<u>Maine</u>

Question #26: Literature – U.S. Literature

10 points per part

Biff Carter’s Lunch Room is just across the tracks from the railroad station in this town.		
1	Name this town where most of the people turn to a local reporter who, along with Seth Richmond and Tom Foster, pursues Helen White.	<u>Winesburg</u> , Ohio
2	The fictional character George Willard writes about the title town in this actual author’s <i>Winesburg, Ohio</i> .	Sherwood <u>Anderson</u>
3	The local Reverend — Curtis Hartman — spies on this schoolteacher, who grew frustrated in her pursuit of George Willard.	<u>Kate Swift</u> [accept either]



Question #27: Fine Arts – Art History

10 points per part

The waxing moon is on the left side of this painting; the right side shows the setting sun and a hazy London skyline.		
1	Name this painting in which the main object, according to the full title, is being “tugged to her last berth to be broken up”.	<i>The <u>Fighting Temeraire</u> (tugged to her last berth to be broken up, 1838)</i>
2	<i>The Fighting Temeraire</i> is by this artist. He also painted <i>Rain, Steam and Speed – The Great Western Railway</i> .	J(oseph) M(allord) W(illiam) <u>Turner</u>
3	Turner’s painting <i>Snow Storm</i> depicts this general leading his army.	<u>Hannibal</u> (Barca) [prompt on <u>Barca</u>]

Question #28: Fine Arts – Art History

10 points per part

In a 2013 interview, Pope Francis expressed respect for this painting.		
1	Name this 1938 painting of Jesus on the cross. It emphasizes the fact that Jesus was Jewish, and depicts him surrounded by other acts of violence against Jews.	<u>White Crucifixion</u>
2	<i>White Crucifixion</i> is by this Jewish artist, who is better known for <i>I and the Village</i> .	Marc (Zakharovich) <u>Chagall</u> [shuh-GAHL] [or Moishe <u>Chagall</u>]
3	This Chagall painting shows an artist with an anatomical oddity, working on a painting that has a red cow in it.	<u>Self-Portrait with Seven Fingers</u> [or <i>L’autoportrait aux sept doigts</i>]



Question #29: Science – Physics

10 points

To strengthen this process, **dysprosium** [diss-PROH-see-um] enhances the doping properties of **europium** [yur-OH-pee-um], which is used with **strontium aluminate** [STRAHN-tee-um uh-LOO-min-“ate”]. **Henri Becquerel’s** [awn-ree bek-ur-el’z] work with materials that undergo this process led to the discovery of radioactivity. During this process, electrons go through a triplet excited state caused by a spin reversal when an electron moves to an excited state. Within the triplet excited state, the ground state is forbidden by the Pauli exclusion principle, which explains why this process takes longer than fluorescence. Name this process used in glow-in-the-dark materials.

phosphorescence [or
phosphorescing]

Question #30: Social Studies – World History

10 points

This country maintained its independence in 1851 by defeating forces from neighboring countries led by **Doroteo Vasconcelos** [dor-oh-TAY-oh vahss-kohn-SAY-lohss] at the Battle of La Arada. That battle strengthened Rafael Carrera, who became this country’s President for Life. A revolution in this country in 1944 removed **Jorge Ubico** [HOR-hay oo-BEE-koh] from power, replacing him with **Juan José Arévalo** [wahn hoh-ZAY ah-RAY-vah-loh] against the wishes of the U.S. Ten years later, the CIA organized a coup that removed this country’s **Jacobo Árbenz** [hah-KOH-boh AR-benz] from power, helping the United Fruit Company. Name this country once controlled by the Mayans that borders Mexico.

(Republic of) Guatemala
or (República de)
Guatemala



Question #31: Literature – British Literature

10 points

<p>A character in this novel says “I am not defending a case, nor are you trying one. We are both of us slaves.” In this novel, a car accident leads one character to have a change of heart regarding the decision to get married. At the end of this novel, the sky and earth seem to say “no, not yet” and “no, not there” about a friendship that cannot be consummated. A tour of the Marabar Caves leads to racial tensions in Chandrapore when a criminal trial involves this novel’s protagonist. Name this E. M. Forster novel about Adela Quested accusing Dr. Aziz of rape.</p>	<p><i>A <u>Passage to India</u></i></p>
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Question #32: Mathematics – Math Concepts

10 points

<p>The problem named for this person is to construct circles that are tangent to either three given circles or to three given objects in a plane. That problem appears in this person’s book <i>Epaphaí</i> [ep-ih-fah-ee], which is Greek for “Tangencies”. This person is credited for first using the word “asymptote” [“ASS-imp-tote”]. In the theorem named for this person, the length of a triangle median is squared and doubled in an equation that also contains the lengths of the triangle sides; that theorem is a special case of Stewart’s theorem. Name this Greek mathematician who, around 200 BCE, wrote a work that used a plane slicing a double cone to define the conic sections.</p>	<p>Apollonius [ap-uh-LOH-nee-uss] of Perga</p>
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Extra Question #1: Science – Physics

10 points

This property is maintained to a length that varies directly with wavelength squared, and inversely with the quantity spectral width times the square root of index of refraction. The scanning interferometry named for this property can accurately determine the topography of a surface. The temporal type of this phenomenon is required for several interferometers, including **Michelson** ["MY"-kul-sun] interferometers. This property holds up over long distances for light produced by lasers. Name this type of correlation that occurs when waves have a consistent frequency and phase difference.

coherence or coherent
light

Extra Question #2: Fine Arts – Art History

10 points

This artist set out to depict 10 angels holding instruments of the Passion, but only completed two, which are now in the church of **Sant'Andrea delle Fratte** [sahnt ahn-DRAY-ah day-lay FRAH-tay] in Rome. A little more than 100 years after Raphael's death, this person finished work on the **Chigi** [KEE-jee] Chapel with the support of Pope Alexander **VII** [7]. This artist also worked for the Cornaro Chapel, which includes his work showing an angel holding a spear of gold over a woman. Name this artist who made several fountains in Rome, including the *Fountain of the Four Rivers*, in addition to sculptures such as *Ecstasy of Saint Teresa*.

Gian Lorenzo Bernini [or
Giovanni Lorenzo
Bernini]



Extra Question #3: Literature – U.S. Literature

10 points

This collection contains a poem that describes creatures that “have cheerful faces...and big black eyes”, and they “know how to dance a **gavotte** [guh-VOT] and a jig”. Another poem in this work describes “the original conjurer” that “holds all the patent monopolies for performing surprising illusions.” One poem in this collection, “The Awefull Battle of the Pokes and the Pollicles”, was adapted for Broadway by Andrew Lloyd Webber. Name this collection of poems by T. S. Eliot that inspired the musical *Cats*.

Old Possum’s Book of Practical Cats

Extra Question #4: Mathematics – Math Concepts

10 points

Moritz Pasch devised a statement known by this word, stating that if a line passes through one side of a triangle, it must pass through one of the other sides too. That is one of several of these statements in David Hilbert’s *The Foundations of Geometry*. Another statement known by this word claims that it’s always possible to pick one of a collection of nonempty sets; that statement is often combined with Zermelo-Fraenkel set theory, and is known as the one “of choice”. Give this term that is essentially equivalent to “postulate”, and means a statement assumed to be true.

axioms



Extra Question #5: Social Studies – U.S. History

10 points

This event was the subject of the movie *My Darling Clementine*. John Behan claimed that he tried to stop this event and that one of the participants went through Fly's Photography Gallery. This event occurred soon after Billy Claiborne killed James Hickey, and six U.S. Army mules were found on the ranch of Tom McLaury, who was killed in this event along with Frank McLaury and Billy Clanton. One of the people involved in this event was both a Deputy U.S. Marshal and the city marshal. Name this event that took place in Tombstone, Arizona, in which Doc Holliday supported Morgan, Virgil, and Wyatt Earp.

gunfight at the O.K. Corral [prompt on partial answers; accept any answer containing the underlined ideas]



Extra Question #6: Mathematics – Geometry

10 points per part

A triple product takes three vectors and gives the volume of this type of shape that the vectors define.		
1	Give this term for a solid with six faces, each of which is a parallelogram.	parallelepiped(s) [“pair”-uh-LEL-uh-“pie”-ped]
2	A parallelepiped has this many edges.	12 edges
3	Find the volume of a parallelepiped if its base has sides measuring 3 units and 4 units, two of its interior angles measure 45° , and the height is 5 units.	$30\sqrt{2}$ [“30 times the square root of 2 ” or “30 times radical 2 ”] cubic units

Extra Question #7: Mathematics – Geometry

10 points per part

This mathematician is the namesake of a 2×2 matrix in which the upper-left entry is the same as, or the opposite of, the lower-right entry.		
1	Name this Indian mathematician. More familiarly, he is the namesake of a formula for the area of any cyclic quadrilateral in terms of its sides’ lengths.	Brahmagupta
2	If a square is inscribed in a circle whose area is 2π [“2 pi”], find the area of that square.	4 square units
3	If a circle is circumscribed around a rectangle measuring 4 units by 6 units, find the area of the circle.	13π [“13 times pi”] square units



Extra Question #8: Literature – U.S. Literature

10 points per part

Answer the following about plays inspired by historic events and literature:		
1	Eugene O’Neill drew on the U.S. occupation of Haiti in this drama, in which a Pullman porter becomes the ruler of a Caribbean island before being shot with a silver bullet.	<i>The <u>Emperor Jones</u></i>
2	This author from Glencoe, Illinois based his verse-drama <i>J.B.</i> on the Biblical story of Job. He also wrote the poem “You, Andrew Marvell”, describing the setting of the sun and the creeping darkness upon various locations.	Archibald <u>MacLeish</u>
3	Maxwell Anderson’s <i>Winterset</i> is based on the trial of these <i>two</i> anarchists who were convicted of murder and executed, despite worldwide condemnation of the sentence.	Nicola <u>Sacco</u> and Bartolomeo <u>Vanzetti</u> [either order]

Extra Question #9: Literature – U.S. Literature

10 points per part

This poet called David a troubadour and Satan a brigadier in “The Bible is an Antique Volume”.		
1	Name this frequent user of slant rhyme, who began one poem by writing, “If I can stop one heart from breaking, I shall not live in vain.”	Emily (Elizabeth) <u>Dickinson</u>
2	Emily Dickinson wrote about one of these events taking place in the speaker’s brain, where “a plank in reason broke” and the speaker “hit a world at every plunge”.	<u>funeral</u> (The poem is called “I felt a Funeral, in my Brain”.)
3	In another Dickinson poem, the speaker’s death coincides with the buzzing of this insect, which got between the speaker and the light before the speaker “could not see to see.”	a <u>fly</u> (in “I heard a Fly buzz — when I died”)