

Round 1 1st Section Toss-up Questions

Question #1: Fine Arts – Classical Music & Opera

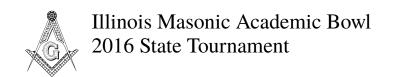
10 points

This composer wrote the books Practical Manual of	Nikolai Rimsky-Korsakov
Harmony and Principles of Orchestration. One of his	
works is Concerto [kun-"CHAIR"-toh] for Trombone	
and Military Band. He used an astrologer to address	
the audience at the beginning and end of his opera <i>The</i>	
Golden Cockerel. Although he was Russian, this	
composer studied Spanish folk songs to compose	
Capriccio Espagnol [kah-PREE-choh es-pahn-YOHL].	
He then returned to Russian themes for <i>Scheherazade</i>	
[sheh-HEH-rah-ZAH-deh] and Russian Easter Festival	
Overture. Name this composer whose The Tale of Tsar	
Saltan includes a fast movement called "Flight of the	
Bumblebee".	

Question #2: Social Studies – Geography

10 points

The Willard Bay Reservoir is adjacent to this larger	Great Salt Lake
body of water. Antelope Island separates most of	
Farmington Bay from this lake. Two of its tributaries,	
which start in the Uinta [oo-IN-tah] Mountains, are the	
Weber [WEE-bur] and Bear Rivers. The Lucin	
[LOO-sin] Cutoff Railroad Trestle divides this lake in	
half, and the northern half is often reddish due to algae	
[AL-jee]. This lake is the largest remnant of Lake	
Bonneville [BAH-nuh-vil]. Other than the Great Lakes,	
this is the largest lake by surface area in the United	
States. Name this lake in Utah.	



Round 1 1st Section Toss-up Questions

Question #3: Mathematics – Math Concepts

10 points

A pair of elements in a non-Abelian [uh-BEE-lee-un] group have this relationship if one of them can be left-multiplied by some other element and right-multiplied by that other element's inverse to give the other of the pair. If transposing a matrix and performing this operation on each element results in the original matrix, the matrix is Hermitian [air-MEE-shun]. If two numbers have the same magnitude but opposite angle in the complex plane, then they have this relationship. If there is a sum or difference involving a radical in a denominator, the denominator is rationalized by multiplying it by a number with this relationship to it. Name this operation that changes *a* plus *b i* into *a* minus *b i*.

conjugates [or conjugation;
accept longer answers like
complex conjugates or
complex conjugation]

Question #4: Literature – U.S. Literature

10 points

In one novel by this writer, Wes Jordan takes Roger Too White on a tour to demonstrate the racial disparities in Atlanta after Elizabeth Armholster accuses Fareek Fanon of rape. Another novel by this writer focuses on a hit-and-run perpetrated in the Bronx by Sherman McCoy, who had been a successful bond trader. This author of *A Man in Full* and *The Bonfire of the Vanities* also wrote nonfiction about the Merry Pranksters and the American space program. Name this New Journalist who wrote *The Right Stuff* and *The Electric Kool-Aid Acid Test*.

Tom Wolfe [or Thomas K(ennerly) Wolfe; do not accept or prompt on "Thomas Wolfe" or "Thomas Clayton Wolfe"]



Round 1 1st Section Toss-up Questions

Question #5: Science – Chemistry

10 points

This metal was the center of one of the first coordination compounds known to be coordinated to an alkene [AL-keen] ligand, Zeise's [ZYE-suh'z] salt. An oxide of this element forms Adams's catalyst. The standard hydrogen electrode is made up of this metal, which in a compound researched by Barnett Rosenberg is coordinated to two ammine [AM-een] ligands and two chloride ions in a *cis* [siss] configuration. This metal is found in the center of the anti-cancer drug cisplatin [sis-PLAT-in]. Like palladium, which is directly above it on the periodic table, it is commonly used as a catalyst. Name this expensive metal whose atomic number is 78 and which is just to the left of gold on the periodic table.

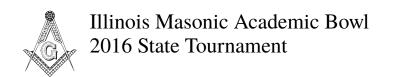
platinum [prompt on **Pt**]

Question #6: Social Studies – World History

10 points

This country's Kataeb [kah-TAY-eb] Party was behind the 1982 Sabra and Shatila massacre. In this country's government, the office of Prime Minister can only be held by a Sunni [SOO-nee], while the President must be Maronite. The refusal to renew Emile Lahoud as this country's president led to the 2005 assassination of its Prime Minister, which the Syrian government was accused of plotting. That murder of Rafik Hariri [rah-FEEK hah-REE-ree] led to this country's Cedar Revolution. Name this country currently headed by Tammam Salam, which gained independence the same day as its neighbor Syria.

Lebanon [or Lebanese Republic or Liban or République libanaise or Lubnan or al-Jumhuriyya al-Lubnaniyya]



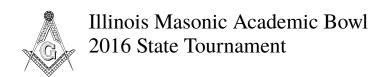
Question #7: Science – Biology

10 points per part

Kay	ser-Fleischer [KYE-sur "FLY"-shur] rings appear	
to fo	orm in this structure in patients with Wilson's	
dise	ase.	
1	Name this structure responsible for controlling the	<u>iris</u>
	diameter of the pupil. The color of the eye is found	
	in this structure.	
2	Kayser-Fleischer rings are caused by copper in	<u>cornea</u>
	Descemet's [DES-uh-may's] membrane, which	
	covers the inner surface of this transparent layer in	
	front of the eye. This object's limbus separates it	
	from the sclera [SKLAIR-uh].	
3	These almond-shaped glands at the sides of the	<u>lacrimal</u> glands
	eyes are responsible for producing the liquid	
	portion of tears.	

Question #8: Science – Biology

This	s disease is spread by the <i>Anopheles</i>	
[uh-	NAH-fuh-lees] mosquito.	
1	Name this disease that was originally treated with	<u>malaria</u>
	quinine [KWYE-"nine"].	
2	Malaria is caused by protozoa [proh-tuh-ZOH-uh]	<u>Plasmodium</u>
	in this genus, which includes species such as	
	falciparum [fal-SIP-uh-rum] and vivax	
	[VYE-vaks].	
3	An attempt to control malaria involved the use of	DDT or
	this pesticide to kill mosquitoes, but its use was	dichlorodiphenyltrichloroethane
	discontinued after the publication of Rachel	
	Carson's Silent Spring.	



Question #9: Literature – U.S. Literature

10 points per part

The	protagonist of this novel is moved to tears by	
Mad	lemoiselle Reisz's ["rice""z] piano-playing.	
1	Name this novel in which Edna Pontellier	The Awakening
	[pahn-tay-yay] swims out into the Gulf of Mexico.	
2	This author of <i>The Awakening</i> wrote of Louise	Kate Chopin ["show-pan"]
	Mallard's "shocking" death in "The Story of an	[or Katherine O'Flaherty]
	Hour".	
3	In another story, Chopin wrote about this woman, a	Désirée [accept "Désirée's
	daughter of Madame Valmonde who was thrown	Baby"]
	out by her husband Armand Aubigny [aw-bin-yee]	
	for supposedly having black ancestry.	

Question #10: Literature – U.S. Literature

This	poem's "Footnote" features the word "holy"	
repe	ated fifteen times.	
1	Name this poem dedicated to Carl Solomon, who is	"Howl"
	told "I'm with you in Rockland." It opens with the	
	line "I saw the best minds of my generation	
	destroyed by madness."	
2	This Beat poet wrote "Howl".	(Irwin) Allen Ginsberg
3	The second section of "Howl" condemns this demon "whose mind is pure machinery". This demon is also tied to a "sphinx of cement and aluminum" that "bashed open skulls" and "ate up brains and imagination".	Moloch



Question #11: Social Studies – Religion

10 points per part

The	se sayings are called "weak", or da'if [dah-EEF],	
if th	ey cannot be linked directly to the person alleged	
to h	ave originated them.	
1	Give the term for these sayings that are collected in	hadith [hah-DEETH] [or
	the Six Books by some believers, and into the Four	ahadith]
	Books by other believers.	
2	The hadith are a collection of sayings uttered by	Muhammad [or
	this man, the founding prophet of Islam.	Mohammed]
3	According to Shi'a [SHEE-uh] Islam, the warning	<u>Ali</u> ibn Abi Talib
	hadith demonstrates that this person was the	
	rightful successor of Muhammad.	

Question #12: Social Studies – Religion

I	n th	his religion, each half of the cosmic time cycle	
f	eatu	ures 24 tirthankaras [tir-tan-KAR-uhz].	
	1	Name this eastern religion whose followers adhere to the doctrine of ahimsa, or non-violence.	Jainism [accept Jain dharma]
	2	Svetambaras [sveh-TAHM-buh-rahz], the majority sect of Jainism, is distinguished by its practitioners wearing robes of this color, in contrast to the Digambaras [di-GUM-buh-ruhz], who wear nothing.	white robes
•	3	Svetambaras also believe that these people can attain moksha, and that the tirthankara Mallinath was this type of person. First Corinthians in the Christian Bible states that it is a shame for these people to speak in church.	women [accept equivalents such as females]



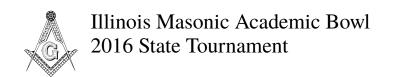
Question #13: Mathematics – Statistics

10 points per part

This	s type of average is also known as the quadratic	
mea	n.	
1	Name this average whose name refers to the steps	root-mean-square average
	used to calculate it, which are very similar to the	or <u>RMS</u> average
	steps used to measure spread using the standard	
	deviation.	
2	The root-mean-square is often used for continuous	<u>5</u>
	distributions, though it can also be used for discrete	
	distributions. What is the RMS average of 1 and 7?	
3	In contrast to the root-mean-square average, what is	4
	the arithmetic [air-ith-MET-ik] mean of 1 and 7?	

Question #14: Mathematics – Statistics

This	quantity equals the expected value of the square	
of th	ne difference between a value and the mean.	
1	Name this measure of spread, equal to the standard deviation squared.	variance [prompt on sigma squared]
2	Find the population variance of the set of two numbers that consists of six and fourteen.	16
3	Find the sample variance of the same set of two numbers, namely, six and fourteen.	32



Round 1 3rd Section Toss-up Questions

Question #15: Literature – British Literature

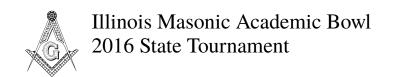
10 points

This character made a sketch of a "woman, draped and	Mr. <u>Kurtz</u>
blindfolded, carrying a lighted torch". A Russian	
known as "the Harlequin" credited this character for	
"enlarging his mind." This trader worked at the Inner	
Station and was described as "hollow at the core." He	
wanted to "exterminate all the brutes," and the	
announcement that he died is used as an epigraph in T.	
S. Eliot's "The Hollow Men." This character's last	
words were "the horror! the horror!". Name this Joseph	
Conrad character whom Charles Marlow seeks in <i>Heart</i>	
of Darkness.	

Question #16: Science – Biology

10 points

An enzyme in this pathway is made more active	glycolysis [or
through the activity of PFK2 [P-F-K "two"]. PFK1	Embden-Meyerhof
catalyzes the rate-limiting step of this pathway, and is	pathway]
part of its investment phase, which consumes two	
molecules of ATP. Gluconeogenesis	
[GLOO-koh-NEE-oh-"genesis"] is effectively the	
reverse of this pathway. This pathway results in a net	
gain of two ATP [A-T-P], two NADH [N-A-D-H], and	
twp pyruvates ["pie"-ROO-vayts], and occurs in the	
cytosol [SYE-toh-sawl]. This process can occur with or	
without the presence of oxygen. The Krebs cycle and	
electron transport chain follow this pathway in aerobic	
respiration. Name this process named for the fact that it	
breaks down a molecule of glucose.	



Round 1 3rd Section Toss-up Questions

Question #17: Miscellaneous – Consumer Education

10 points

This type of agreement is treated like a checking account in a CMG Plan. Those whose rates are periodically adjusted relative to a market index are called ARMs. In the "reverse" form of this arrangement, the owner of the collateral can access its equity, and no monthly payments are required. Fannie Mae and Freddie Mac are involved in the secondary market for these agreements. Almost a decade ago, a large number of "subprime" ones led to a financial crisis and a spike in foreclosures. Name these loans secured by real property, such as a house.

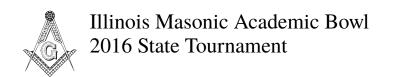
mortgages or mortgage
loans [prompt on loans]

Question #18: Literature – World Literature

10 points

At this play's conclusion, the protagonist describes a locale as a "den of thieves vice reigns among", and vows to find a place where "one is free to be an honest man". At the beginning of this play, Philinte [fee-lant] is criticized for praising a man. In this play, a sonnetteer asks a man who is "more sincere than suits the case" for feedback, only to accuse the protagonist of libel. The discovery of gossipy letters ruins Célimène's [say-lee-men'z] social standing in this play. Name this drama in which Alceste [al-sest] detests everyone, by Molière.

The <u>Misanthrope</u>(, or the Cantankerous Lover) [or Le <u>Misanthrope</u>(, ou l'Atrabilaire amoureux)]



Round 1 3rd Section Toss-up Questions

Question #19: Social Studies – U.S. History

10 points

In an op-ed regarding gays in the military, this person	Barry (M
argued "You don't have to be straight, you just need to	(Jr.)
shoot straight." A bill named for this senator and Bill	
Nichols restructured the Defense Department in 1986.	
Brent Bozell ghostwrote this person's book <i>The</i>	
Conscience of a Conservative. Ronald Reagan's "A	
Time for Choosing" speech was an endorsement of this	
politician, who in accepting his party's nomination said	
"extremism in the defense of liberty is no vice." Name	
this U.S. senator from Arizona who lost to Lyndon	
Johnson in the 1964 presidential election.	

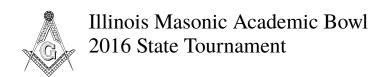
Barry (Morris) <u>Goldwater</u>

Question #20: Science - Earth Science

10 points

This is the most common rock used for dusting coal
mines to prevent explosions. This rock, especially if it
has silicon dioxide impurities, is combined with clay to
make Portland cement, the most common type of
cement. This rock and dolomite are the most common
constituents of speleothems [SPEE-lee-oh-themz],
which are cave formations like stalactites. Chemically,
this rock is very similar to marble, and travertine
[TRAV-er-teen] and chalk are types of it. This rock is
made of aragonite and calcite [KAL-site]. Name this
sedimentary rock made of calcium carbonate.

limestone [prompt on
calcium carbonate before
the end]



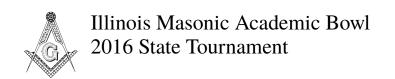
Question #21: Mathematics – Geometry

10 points per part

This	s term is taken from the name of a 17th- and	
18th	-century Italian mathematician.	
1	Give the <i>general</i> name of any segment that connects the vertex of a triangle to its opposite side.	cevian [CHAY-vee-un, but be generous] [prompt on Ceva [CHAY-vuh]]
2	This type of cevian connects a vertex of a triangle	<u>median</u>
	to the midpoint of its opposite side.	

Question #22: Mathematics – Geometry

The	regular examples of these shapes are called	
Plate	onic solids.	
1	Name these three-dimensional solids whose faces	polyhedra [accept
	are polygons and whose edges are straight. This	polyhedron]
	category of solids includes, among many other	
	solids, pyramids with any base.	
2	This class of polyhedra ["poly"-HEE-drah]	Archimedean solid [accept
	contains shapes with multiple different shapes as	Archimedes ' solid]
	faces, but all the vertices [VER-tuh-sees] have the	
	same structure.	
3	Find the total number of faces of a truncated	8 faces
	tetrahedron, which is the Archimedean solid with	
	the fewest number of faces.	



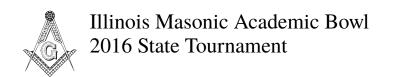
Question #23: Fine Arts – Art History

10 points per part

This	s statue was created by Paul Landowski, Heitor da	
Silv	a Costa, and Albert Caquot [ka-kwoh]. It is on	
Core	covado [kor-koe-VAH-doe] mountain and is about	
100	feet tall.	
1	Name this statue, completed in 1931, whose outer	Christ the Redeemer [or
	layers are soapstone.	<u>Cristo Redentor</u>]
2	Christ the Redeemer is in this country, in the city of	(Federative Republic of)
	Rio de Janeiro.	Brazil [or República
		Federativa do Brasil]
3	Rio de Janeiro was the capital of Brazil until Lucio	Oscar <u>Niemeyer</u>
	Costa and this architect designed Brasilia. With	-
	advice from Le Corbusier [lay kor-boo-see-ay], this	
	architect also designed the headquarters of the	
	United Nations.	

Question #24: Fine Arts – Art History

This	s artist made portraits of Adele Bloch-Bauer.	
1	Name this Vienna Secession artist who made the Beethoven Frieze ["freeze"] and who showed a	Gustav <u>Klimt</u>
	woman with her head turned sideways and her	
	knees bent in <i>The Kiss</i> .	
2	The Kiss and Adele Bloch-Bauer One, like many of	gold foil [or gold leaf]
	Klimt's works, are embossed with foil made of this	
	metal.	
3	This is the name of the central part of Klimt's	Tree of life [or
	Stoclet Frieze, which appears between a woman	<u>Lebensbaum</u> ; prompt on
	and an embracing couple. The object depicted in	<u>tree</u> or <u>baum</u>]
	this section contains many spirals.	



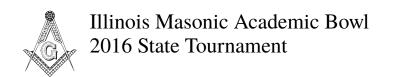
Question #25: Science – Chemistry

10 points per part

Fluc	orine has the highest value for this quantity on the	
Paul	ling scale.	
1	Name this quantity, the tendency for an element to attract electrons in a bond.	<u>electronegativity</u>
2	High values for electronegativity are what allow nitrogen, oxygen, and fluorine to participate in these interactions, named for the element they interact with.	hydrogen bonds
3	Electronegativity increases as toward the right on the periodic table in part due to the increase in this quantity, which can be estimated using Slater's rules. This quantity is caused in part due to shielding electrons.	effective nuclear charge [prompt on answers involving the letter Z ; do not accept incomplete answers]

Question #26: Science – Chemistry

For	glucose, CH2O ["C H two O"] is this type of	
forn	nula—the same as for ribose ["RYE"-bohss] and	
forn	naldehyde.	
1	Name this formula that shows the <i>ratios</i> of atoms	empirical formula
	present in a compound, not the exact numbers.	
2	The percent masses of elements used to determine	elemental analysis [or CHN
	the empirical formula may be determined through	analysis]
	this method, in which a sample is combusted and	
	the masses of the products are measured.	
3	Empirical formulas are commonly used to	ionic compounds or ionic
	represent these compounds, as they do not typically	solids
	exist with a fixed molecular formula. These	
	compounds typically dissolve in water and have	
	high melting points due to their strong	
	intermolecular attractions.	



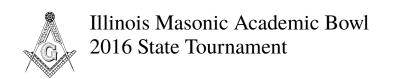
Question #27: Social Studies – U.S. History

10 points per part

This	speech compares the merchant at the crossroads	
to th	e one in New York, and claimed income taxes	
beca	me unconstitutional when a judge changed his	
min	d.	
1	Name this speech delivered by a man who claimed	Cross of Gold speech
	to have the backing of the commercial and laboring	
	interests, as well as the "toiling masses".	
2	This Nebraskan gave the "Cross of Gold" speech at	William Jennings Bryan
	the 1896 Democratic National Convention.	_
3	Bryan's support of bimetallism ["bye-metal-ism"]	(Marcus Alonzo) Mark
	was attacked by this campaign manager for William	<u>Hanna</u>
	McKinley. A political cartoon showed this man	
	wearing a suit covered with dollar signs.	

Question #28: Social Studies – U.S. History

		, , ,
Civilians harmed by this attack constructed a series of		
dug	outs that the victorious soldiers nicknamed	
"Pra	irie Dog Village."	
1	Name this attack followed by the capture of Port	Battle of Vicksburg [or
	Hudson. This Civil War victory for the Union was	Siege of Vicksburg]
	important to the Anaconda Plan.	
2	This man's forces at Vicksburg, nicknamed the	William Tecumseh Sherman
	"Forlorn Hope," failed to capture the Stockdale	
	Redan. Later, his forces would burn Atlanta to the	
	ground before "marching to the sea".	
3	As Mississippi was about to fall, this Confederate	Joseph E(ggleston)
	general ordered the abandonment of Vicksburg.	Johnston [prompt on
	John Pemberton failed to follow his order. This	Johnston]
	leader was later replaced by General Hood just	
	before Atlanta was burned.	



Round 1 5th Section Toss-up Questions

Question #29: Science – Physics

10 points

This quantity is related to a substance's polarizability ["polar-eye"-zuh-BIL-ih-tee] and number density by the Lorentz-Lorenz formula. This quantity is equal to the square root of the product of relative permeability and permittivity. Differences in this phenomenon cause the path-length differences that result in the coloration of a thin film. Icelandic spar has two different values for this quantity, which results in birefringence [bie-ree-FRIN-juns]. These values for two different media are multiplied by the sines of of the angles of incidence and reflection in Snell's law. Name this quantity equal to the ratio of speed of light in vacuum to the speed of light in a given medium.

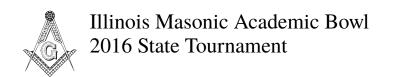
index of refraction [or
refractive index; prompt on
n; prompt on local speed of
light or c]

Question #30: Literature – U.S. Literature

10 points

After he shot Tim Johnson, this man's nickname was revealed by Miss Maudie to be "One-Shot". Newspaper editor Braxton Underwood held up a shotgun to defend this man when Walter Cunningham Senior organized a mob against him. In one case, this character argued that his client's slung hand could not have left incriminating marks on the left side of a woman's face. He was unable to convince a jury that Mayella Ewell was not raped by Tom Robinson in Maycomb County. Name this father of Jem and Scout in Harper Lee's *To Kill a Mockingbird*.

Atticus Finch [prompt on Finch; prompt on "One-Shot" before it is mentioned]



Round 1 5th Section Toss-up Questions

Question #31: Mathematics – Math Concepts

10 points

Fermat's [fair-mah'z] right triangle theorem states that a triangle whose three sides are each this type of number cannot have an area that is a square of this type of number. These numbers give a nonzero output for Thomae's [toh-MAY'z] function. This set of numbers is both continuous and countable, and its countability can be demonstrated by "spiraling outward" in a lattice depiction of Z cross Z. Examples of the kind of function defined and named by analogy to these numbers consist of a polynomial divided by another polynomial. When written in decimal form, these numbers terminate or repeat. Name this type of real number, examples of which can be written as a quotient of integers.

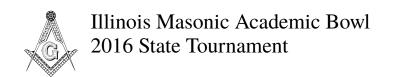
rational numbers or
rationals [prompt on Q]

Question #32: Social Studies – World History

10 points

At one battle in this conflict, the strong wind aided the archers of Lord Fauconberg, while the Earl of Warwick inspired his troops by killing his own horse. At this war's Battle of Tewkesbury [TOOKS-bur-ee], English heir apparent Edward of Westminster was killed. Featuring two distinct battles at St. Albans, this war saw the imprisonment of King Edward the Fifth and his brother Richard, the "Princes in the Tower". The Stanleys support for the eventual winner helped turn the tide in this conflict's decisive battle at Bosworth Field. Name this conflict in which the Houses of Lancaster and York were represented by red and white flowers.

War(s) of the **Roses**



Round 1 Extra Section Toss-up Questions

Extra Question #1: Literature - British Literature

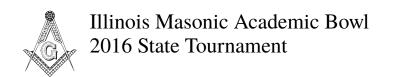
10 points

One of this writer's poems is set during the title figure's	Robert Browning [prompt
annual day off from silk-winding, and its protagonist	on Browning]
proclaims "God's in his heaven / All's right with the	
world." This author of Pippa Passes wrote a poem in	
which the speaker is told not to catch men with show,	
"Fra Lippo Lippi". In another poem by this author, a	
statue of Neptune is near Fra Pandolf's painting of the	
title woman. Name this author of "My Last Duchess",	
the husband of the poet who wrote "Sonnets from the	
Portuguese".	

Extra Question #2: Social Studies – U.S. History

10 points

Ernest Gruening, one of the U.S. Senators from this	<u>Alaska</u>
state, was one of two senators to vote against the Gulf	
of Tonkin Resolution. Ernest Gruening's successor as	
senator from this state, who moved to enter the	
Pentagon Papers into the Congressional Record, was	
Mike Gravel [gruh-VEL]. The aborted Gravina Island	
bridge in this state became known as the "Bridge to	
Nowhere", and was championed by its then-governor	
Sarah Palin. Name this state formed from the territory	
purchased from Russia in "Seward's Folly".	



Round 1 **Extra Section Toss-up Questions**

Extra Question #3: Mathematics – Math Concepts

10 points

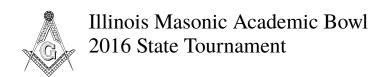
A cube named for these numbers is built by looking for numbers whose binary representation does not contain consecutive ones. The polynomial expansion of one divided by the quantity one minus x minus x squared has these numbers as coefficients. As these numbers get larger, their ratio of consecutive values approaches the golden ratio. These numbers, which form a specific example of a Lucas [loo-kah] sequence, are named for a 13th-century Italian who used them to model the growth of populations of rabbits. Identify this sequence in which each number is the sum of the previous two, beginning 1, 1, 2, 3, 5, 8.

Fibonacci sequence [accept **Fibonacci** numbers

Extra Question #4: Science – Astronomy

10 points

Before William Herschel resolved it into stars, this Charles **Messier** [mess-yay] person discovered a globular cluster in Canes Venatici [KAY-neez vih-NAA-tih-"sigh"]. This person also discovered Lexell's comet, which made the closest measured comet approach to Earth, and he discovered at least ten other comets. During his searches, this person often saw nebulous objects that needed close inspection to determine whether they are comets. The first such object was the Crab Nebula, and the 31st such object was the Andromeda Galaxy. Name this French astronomer whose list of 110 objects became a commonly used astronomical catalogue.



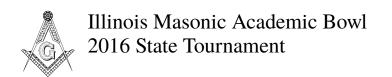
Round 1 Extra Section Toss-up Questions

Extra Question #5: Fine Arts – Art History

10 points

This artist's triptych ["TRIP-tick"] Resistance,
Resurrection, Liberation is at a museum in Nice
["niece"] that was originally dedicated to his religious
works. This artist showed himself lying down, wearing
a blue shirt and black pants, at the bottom of The Poet
Reclining. An oversized man wearing black with a
brown bag over his shoulder is facing steeply downhill
near this artist's early hometown in Over Vitebsk. He
designed three tapestries for the Knesset [k'NEH-set]
and the ceiling for the Paris Opera. Name this artist
who showed a white goat facing a green-faced man in I
and the Village.

Marc (Zakharovich) **Chagall** [shuh-GAHL]



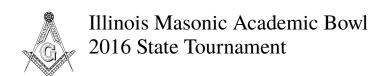
Extra Question #6: Literature – British Literature

10 points per part

The Allens invite this protagonist on a journey to		
Bath.		
1	Name this protagonist of Northanger Abbey, whom	Catherine Morland [accept
	Isabella Thorpe advises to read Mysterious	either]
	Warnings and Castle of Wolfenbach.	
2	Northanger Abbey is by this author, whose other protagonists include Elizabeth Bennet and Fanny Price.	Jane <u>Austen</u>
3	Catherine has an affinity for romance novels in this	Gothic novels [or Gothic
	genre, which includes <i>The Mysteries of Udolpho</i> .	fiction or Gothic romances]

Extra Question #7: Literature - British Literature

Mad alon	s mock epic was inspired by John Dryden's cFlecknoe. A fourth book was later added to it ag with revisions to the original text changing the to Colley Cibber [KIB-bur] from Lewis	
Theobald.		
1	Name this mock epic whose hero is found to be the favorite of the goddess Dulness.	The Dunciad ["DUNCE"-ee-ad]
2	The Dunciad was written by this English author of The Rape of the Lock.	Alexander Pope
3	The Dunciad parodies this ancient Roman poem about the son of Anchises [an-KIE-sees] and Venus.	(the) Aeneid [uh-NEE-id]



Extra Question #8: Mathematics - Algebra

10 points per part

The <i>x</i> -axis and <i>y</i> -axis divide the plane into regions		
called quadrants.		
1	What is the name of the regions formed by the	<u>octant</u> s
	division of space by the xy plane, the yz plane, and	
	the xz plane?	
2	Find the maximum possible number of octants that	7
	a single plane in three-space can enter. The axes do	
	not count as part of any octant.	
3	If four-space was divided up using a method	16
	corresponding to the division of the plane into	
	quadrants or three-space into octants, how many	
	sections would there be?	

Extra Question #9: Mathematics – Algebra

These formulas are named for a French mathematician		
who pioneered the use of letters to represent variables.		
1	Name these formulas that give the relationship	<u>Vieta</u> 's formulas [or <u>Viète</u> 's
	between a polynomial's coefficients, and the sum	formulas]
	and the product of its roots.	
2	Find the sum of the solutions to the quadratic	<u>5</u>
	equation two x squared, minus ten x, plus 1, equals	
	zero.	
3	Find the discriminant of the same equation. Again,	92
	that equation is two x squared, minus ten x , plus 1,	
	equals zero. Do not take the square root of the	
	discriminant.	