

# Round 5 1st Section Toss-up Questions

# **Question #1: Social Studies**

10 points

Though Tom and Mark Udall [YOO-dahl]	<u>Arizona</u>
represented New Mexico and Colorado in Congress,	
their fathers—who are brothers—both represented	
this state. The "Silent Senator" Carl Hayden	
represented this state for 57 years. In 1960, a U.S.	
senator from this state wrote the book <i>The</i>	
Conscience of a Conservative; that senator later	
ran for president, saying "Extremism in the defense	
of liberty is no vice!". This state was the home of	
Barry Goldwater and of the 2008 Republican	
presidential nominee. Name this state whose	
current senators are Kyrsten Sinema ["cinema"]	
and Martha McSally and which was the home of	
John McCain.	

## **Question #2: Science**

Dyes that are this type of substance work well for	<u>acid</u> s [or <u>acid</u> ic
wool, silk, and nylon, but they do not work well for	substances]
cotton. Organic compounds with a carboxyl	
[kahr-BOK-sil] group are all this type of compound,	
which is explicit in their names. Rechargeable	
batteries commonly use lead [led] at the terminals	
and this type of substance as the electrolyte. These	
substances make bromo·thymol	
[BROH-moh-THY-mawl] blue and phenol red both	
look yellow. According to Brønsted and Lowry,	
these substances donate hydrogen ions to a solution.	
These substances have a pH ["P-H"] less than 7.	
Name these molecules that can be neutralized by	
bases.	



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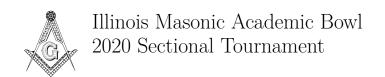
#### **Question #3: Literature**

10 points

This character eventually agrees to go to a hovel	King <b>Lear</b>
[HUV-ul] during a storm after saying "I am a man	
more sinned against than sinning." When a woman	
says "Nothing, my lord" to this character, he	
replies "Nothing can come of nothing. Speak again."	
That woman later marries the king of France. This	
character is praised by the wives of the Duke of	
Albany and the Duke of Cornwall, who are each	
given a half of his inheritance after initially being	
given a third of it. Name this king of Britain in a	
William Shakespeare tragedy whose daughters are	
Goneril [GAH-nuh-ril], Regan, and Cordelia.	

### **Question #4: Miscellaneous**

In this sport, attacks from the back can be called	<u>volleyball</u>	
"bics" or "pipes". This sport is not soccer, but it		
has players called liberos [LI-buh-roes] who are		
defensive specialists and do not have to follow		
standard substitution rules. The only defensive		
statistic in this sport is digs, though blocking is also		
a statistical category. Clara Baer developed a		
variant on this sport called Newcomb that allows		
catching. This sport is usually played by six people		
on each side when it is indoors, though there are		
only two people per team in the competitive beach		
version. Name this sport in which the goal is to hit		
the ball over the net.		



# Round 5 1st Section Toss-up Questions

#### **Question #5: Science**

10 points

This type of incident is very similar to, but more severe than, a transient ischemic [is-KEE-mik] attack. About 90% of these medical incidents are silent, meaning that the patient is unaware it happened but has lesions that appear on an MRI. This type of incident is more likely for people who have migraines with auras and women who take estrogen hormone replacement therapy. This type of incident is generally rare in children, though 10% of children with sickle-cell anemia suffer one. This type of incident is often due to problems in the carotid [kuh-"ROT"-id] arteries. These incidents can cause facial droop, speech difficulties, and death. Name this type of medical incident caused by poor blood flow to the brain.

stroke(s) [or apoplexy or
cerebral hemorrhage(s)
or cerebral vascular
accident(s) or cerebral
infarction(s); prompt on
partial answers]

#### **Question #6: Social Studies**

10 points

On some economics graphs, producer surplus is the area below the equilibrium price but above the curve representing this quantity. That curve representing this quantity is shifted down by a subsidy. The curve representing this quantity has a positive slope on that graph, which places this quantity on the x-axis and price on the y-axis. Cost-push inflation occurs when this quantity decreases. An economic theory based on increasing this quantity focuses on deregulation and lower taxes for the wealthy. This quantity is the amount of a good that can be produced. Name this quantity often compared to demand.

supply [accept
supply-side economics]



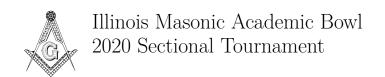
#### **Question #7: Literature**

10 points per part

Bud	dha attained enlightenment while sitting	
und	er one of these objects called the Bodhi	
[BO	H-dee].	
1	Name these objects that, following a tradition	trees
	started in Northeastern Europe, are often	
	brought into homes and decorated during	
	Christmas.	
2	This large ash tree is the center of the universe	Yggdrasil [IG-druh-sill]
	in Norse mythology.	
3	In Greek mythology, these nymphs lived in oak	dryads ["DRY-ads"]
	trees. Women sometimes pretended to be these	
	nymphs when worshiping Artemis	
	[ART-eh-miss].	

#### **Question #8: Literature**

Ans	wer the following about problems caused by	
oper	ning things:	
1	This first woman of Greek mythology opened a	<u>Pandora</u>
	box or jar, releasing evil and sickness to the	
	world.	
2	Aeolus [ee-OH-luss] gave a favorable wind to	Odysseus or Ulysses
	this person and put the other winds in a bag.	
	This person's crew opened the bag, causing	
	their ship to go back to where it was.	
3	The temple of God opens in the Book of	seven trumpets
	Revelation after this many trumpets sound,	
	followed by lightning, an earthquake, and great	
	hail.	



#### **Question #9: Mathematics**

10 points per part

Ans	wer the following about matrix multiplication:	
1	If $A$ and $B$ are matrices, then $A$ times $B$ usually doesn't equal $B$ times $A$ . Therefore,	<pre>commutative property or commutativity</pre>
	matrix multiplication lacks what property?	,
2	Give the name for the matrix that results when	identity matrix [prompt
	a matrix is multiplied by its own inverse.	on <u>I</u> ]
3	Find the number in the upper left corner when	<u>10</u>
	the matrix with top row 3, 1 and bottom row 3,	
	5 [pause] is multiplied by the matrix with top	
	row 3, 6 and bottom row 1, 9.	

#### **Question #10: Mathematics**

For	positive numbers, but not for negative	
num	nbers, this function is equivalent to the identity	
func	etion.	
1	Name this function that gives the distance	absolute value [accept
	along the number line between the input and 0.	complex <b>modulus</b> ]
2	For complex numbers, one way to find the	complex <b>conjugate</b> or
	absolute value, or modulus, is to take the	complex <b>conjugation</b>
	square root of the number times this operation	
	on the number. This operation keeps the real	
	component the same and takes the opposite of	
	the imaginary component.	
3	Find the absolute value, or modulus, of 2 minus	square <u>root</u> of <u>13</u> [accept
	3i.	radical 13; do not prompt
		on "13"]



#### **Question #11: Social Studies**

10 points per part

This	s person was born in Trier, Prussia, but he left	
in 1	843 because the newspaper he edited was	
repe	eatedly censored.	
1	Name this writer of <i>Das Kapital</i> [dahss	Karl <u>Marx</u>
	kah-pee-TAHL], who worked with Friedrich	
	Engels ["angles"] on The Communist Manifesto.	
2	Marx wrote a detailed criticism of this	G(eorg) W(ilhelm)
	philosopher's text Elements of the Philosophy of	F(riedrich) <b>Hegel</b>
	Right. Marx is credited with applying this	[HAY-gull]
	philosopher's dialectic to materialism.	
3	Marx was supportive of the commune that ran	Paris, France [accept
	this city for a few months during 1871 and	Paris Commune]
	which burned down the Tuileries	_
	[twee-luh-ree] Palace.	

#### **Question #12: Social Studies**

In 1	084, Robert Guiscard [gwee-kar] attacked this	
city	to free Pope Gregory VII from the Castel	
San	t'Angelo.	
1	Name this city surrounding Vatican City that	Rome, Italy [or Roma,
	has been sacked several times, including in 410	Italia]
	by the Visigoths and in 546 by the Ostrogoths.	
2	This group led by Genseric [JEN-suh-rik] sacked	<u>Vandal</u> s
	Rome in 455. This group's name is now applied	
	to people who purposely destroy property.	
3	In the book Ab Urbe Condita [ahb UR-bay	<u>Livy</u> [or Titus <u>Livius</u> ]
	kon-DEE-tuh], this historian described a sack of	
	Rome in 387 BCE by the Gauls under Brennus.	
	The description is not believed to be accurate.	



#### **Question #13: Science**

10 points per part

The	largest of these objects in the world is the	
Lan	nbert, which is 270 miles long and 60 miles	
wide	<b>3.</b>	
1	Name these persistent masses of slow-moving	<b>glacier</b> s
	ice.	
2	This ice ablation [uh-BLAY-shun] process	ice <u>calving</u> [or <u>calve</u> ]
	occurs when a chunk of ice suddenly breaks off	
	of the edge of a glacier.	
3	Because this epoch [EP-uk] had repeated	Pleistocene
	glaciations, it is sometimes called the Ice Age.	[PLY-stoh-seen] epoch
	This epoch started the Quaternary Period,	
	immediately preceding the Holocene	
	["HOLE-oh-seen"] epoch.	

#### **Question #14: Science**

This	s warming of water temperature is paired with	
a ne	egative Southern Oscillation Index affecting air	
pres	sure.	
1	Name this Pacific Ocean phenomenon that	El <u>Niño</u>
	occurs about every four years, leading to	
	above-average rainfall in the southern United	
	States.	
2	These cyclones move farther east during El	typhoons
	Niño, sometimes putting Tahiti at risk.	
3	Recent El Niños have caused the polyps in	corals [accept coral
	these anthozoans [an-thoh-ZOH-unz] to expel	bleaching]
	their zooxanthellae [zoh-uh-zan-THEL-uh].	
	Give the common name.	



# Round 5 3rd Section Toss-up Questions

#### **Question #15: Fine Arts**

10 points

Andrea del Castagno's [ahn-DRAY-uh del kah-STAHN-yoh'z] depiction of this event shows a person sleeping near its center. That work influenced Domenico Ghirlandaio's [doh-MEN-ee-koh geer-lahn-DY-oh'z] three paintings of this event. Tintoretto's [teen-toh-RET-oh'z] depiction of this event is unusual for its inclusion of secondary characters and the angle of its perspective. The most famous painting of this event is a fresco in Milan, and some people have debated whether a central figure is St. John or Mary Magdalene [MAG-duh-lin]. Name this event often depicted as taking place with Jesus in the middle of a long table, such as in Leonardo da Vinci's [VIN-chee'z] portrayal.

the <u>Last Supper</u> [or Il <u>Cenacolo</u> or L'<u>Ultima</u> Cena]

#### **Question #16: Literature**

10 points

Before engaging in a sword fight, this character says "Wait while I choose my rhymes." This person then defeats Vicomte de Valvert [vee-kamt de val-vair] in a duel that takes place shortly after this person forces the cancellation of a performance of *Clorise* [klaw-reess] because he does not allow Montfleury [mawn-floo-ree] to act. This person gets upset because many people, including Christian, are in love with the same woman as him. Because he is afraid to declare his love, this person helps Christian write love letters to Roxane. Name this character in an Edmond Rostand play who is self-conscious about his very large nose.

Cyrano de Bergerac [prompt on Bergerac]



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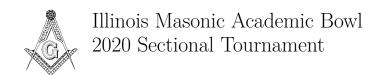
#### **Question #17: Mathematics**

10 points

Applying this function and then adding 1 only gives	(n) <b>factorial</b> function
a perfect square if the input is 4, 5, or 7, according	
to the best-known solution of Brocard's problem.	
This function is used in the denominators of	
coefficients in a Taylor series. If this function is	
applied to $n$ and $n$ minus 1, the ratio of the results	
is $n$ . This function is used to give simple definitions	
of the permutation and combination operations.	
This function is used to determine the number of	
ways to line up a given number of different items.	
Name this function calculated by taking the	
product of all positive integers less than or equal to	
the input, and which is represented by an	
exclamation point.	

## **Question #18: Social Studies**

Like many slave traders, Tippu [TIP-oo] Tip also	ivory
traded this substance. Celluloid was developed as a	
replacement for this substance. Kenyan president	
Daniel Arap Moi burned 12 tons of this substance	
in 1989. During the same year, an international	
moratorium was established on the trade of this	
substance. Richard Leakey, the son of Mary and	
Louis Leakey, organized units that were allowed to	
shoot people on sight to curtail trade in this	
substance. This substance used to be popular to	
make billiard balls and the covering of some piano	
keys. Name this substance whose trade was banned	
to save elephants, since this substance comes from	
elephants' tusks.	



# Round 5 3rd Section Toss-up Questions

#### **Question #19: Science**

10 points

Canonical [kuh-NAH-nuh-kul] coordinates most often use components of this quantity and Cartesian [kar-TEE-zhun] coordinates. For a photon, this quantity can be calculated as Planck's constant over wavelength, or as energy divided by the speed of light. The net force on an object equals the rate of change of this quantity. This quantity is conserved, which is useful when determining the outcome of both elastic and inelastic collisions. The change of this quantity equals the integral of force with respect to time, which is impulse. Name this quantity equal to mass times velocity.

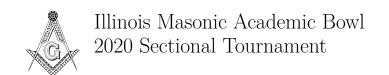
linear <u>momentum</u> [do not accept or prompt on "angular momentum"]

#### **Question #20: Literature**

10 points

This character traveled to Wisconsin to ask a woman to marry him, only to find out she was already engaged to his cousin. This character asked Mr. Philander about three skeletons, the smallest of which was an anthropoid ape. Paul D'Arnot [dar-noh] taught this character how to speak French, and this person learned to read English long before learning to speak it. This character killed Kerchak after Kerchak killed his father, and he was raised by Kala in Africa. This character, who was born with the name John Clayton II, Viscount Greystoke, falls in love with Jane Porter. Name this Edgar Rice Burroughs character who was raised in the jungle by apes.

Tarzan [accept John Clayton II or Viscount Greystoke before each is mentioned]



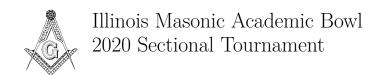
#### **Question #21: Social Studies**

10 points per part

The	person who holds this position is second in	
the	United States presidential line of succession,	
afte	r the vice president.	
1	Give this title of the leader of the U.S. House of	<b>Speaker</b> of the U.S. House
	Representatives.	of Representatives
2	This constitutional amendment states that the	25th Amendment
	Speaker of the House and president pro	
	tempore of the Senate should be notified when	
	the President is unable to continue in his or her	
	position.	
3	This informal name is given to the group of	Gang of Eight
	Congresspeople, including the Speaker, who	
	receive intelligence briefings from the executive	
	branch.	

#### **Question #22: Social Studies**

The	U.S. federal government defines this type of	
crin	ne as one punishable by at least a year in	
pris	on or by death.	
1	Name this type of crime that is more serious	<u>felony</u>
	than a misdemeanor.	
2	The practice by some states of felony	14th Amendment
	disenfranchisement is allowed by this	
	constitutional amendment. It also addresses	
	citizenship and the ability of rebels against the	
	U.S. to hold federal office.	
3	This movement is an attempt to get employers	ban the box
	to stop asking potential employees about their	
	criminal history. Many states have done so by	
	adopting fair-chance laws.	



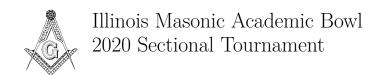
#### **Question #23: Science**

10 points per part

Mar	ny instruments use this type of wave to create	
sour	nd, but sound itself is a longitudinal wave.	
1	Name these waves that vibrate perpendicularly	transverse waves
	to the direction of motion.	
2	This term refers to transverse waves that	<b>polarized</b> waves or
	oscillate in a single plane rather than a variety	<u>polarization</u>
	of transverse directions.	
3	This angle, sometimes called the polarization	Brewster's angle
	angle, is the angle of incidence that causes all	
	reflected waves to be polarized.	

### **Question #24: Science**

The	most massive of these six particles is the top	
one.		
1	Name these subatomic particles, most of which	<u>quark</u> s
	are up or down.	
2	This property is $1/3$ for all quarks. This	<b>baryon</b> number
	"number" is named for a class of hadrons	
	[HAY-drahnz] that includes protons and	
	neutrons.	
3	The discovery of quarks that are not up or	theta and tau [either
	down was made by solving a so-called "puzzle"	order]
	named for these two particles. They were	
	thought to be different but are actually both	
	kaons [KAY-ahnz].	



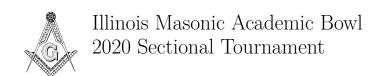
#### **Question #25: Literature**

10 points per part

The	1917 Nobel Prize in Literature was shared by	
Kar	l Adolph Gjellerup [GEH-luh-roop] and Henrik	
Pon	toppidan [pahn-TAH-pee-dahn].	
1	They were both from this country, and were	(Kingdom of) <b>Denmark</b>
	part of the Modern Breakthrough movement.	or (Kongeriget) <b>Danmark</b>
2	Denmark was also the home of this children's	Hans Christian <b>Andersen</b>
	author who wrote "The Little Mermaid" and	
	"The Ugly Duckling".	
3	This is the pen name of the Danish author	Isak <u>Dinesen</u>
	Karen Blixen, who wrote Out of Africa about	
	her time in Kenya.	

### **Question #26: Literature**

This	s character's first name is "Alonso" at first,	
but	it changes.	
1	Name this character who calls himself a knight	Don <b>Quixote</b> (de La
	and attacks windmills.	Mancha)
2	Don Quixote gives this name to Aldonza	<u>Dulcinea</u>
	Lorenzo, saying that she is the perfect woman	[dool-see-NAY-ah]
	and is from El Toboso [toh-BOH-soh].	
3	This is the profession of Nicholas, who helps the	<u>barber</u>
	curate destroy Don Quixote's library and bring	
	Don Quixote back home.	



#### **Question #27: Fine Arts**

10 points per part

This	s city is often credited as the birthplace of jazz	
due	to performances by "Buddy" Bolden and Jelly	
Roll	Morton.	
1	Name this city where Preservation Hall is in the	New Orleans, Louisiana
	French Quarter just off of Bourbon Street.	
2	During the 1910s, many New Orleans musicians	Edward "Kid" <b>Ory</b>
	performed for this trombonist and bandleader	
	before he moved to Los Angeles. Those	
	musicians included Joe "King" Oliver and Louis	
	Armstrong.	
3	Many jazz musicians, including Louis	New York (City), New
	Armstrong and Washington D.C.'s Duke	York [accept <b>NYC</b> ]
	Ellington, moved to this city and performed in	
	the Cotton Club during the 1920s and 30s.	

#### **Question #28: Fine Arts**

Star	a Getz primarily played the tenor type of this	
inst	rument.	
1	Name this single-reed woodwind that is usually	(tenor) <u>sax</u> ophone(s)
	made from brass and is popular in jazz music.	
2	This saxophonist formed a quartet with McCoy	John (William) <u>Coltrane</u>
	Tyner, Jimmy Garrison, and Elvin Jones. His	
	albums include A Love Supreme and Giant	
	Steps.	
3	Stan Getz is best known for his recording of	"The <b>Girl from Ipanema</b>
	this song that is set in Brazil and was written	[ip-uh-NEE-muh]" [or
	by Brazilians.	"Garota de Ipanema"]



# Round 5 5th Section Toss-up Questions

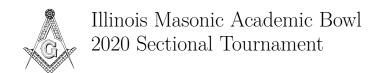
#### **Question #29: Mathematics**

10 points

If a function is even, then each term in its Fourier	<u>cos</u> ine function
[for-yay] series contains this function. If the	
direction of a vector is expressed using this	
function, then the sum of the squares of the values	
of this function equal 1. In spherical coordinates,	
this function of the inclination angle gives the ratio	
between the $z$ -coordinate and the distance from the	
origin. Dot products are calculated by multiplying	
the magnitudes of vectors times a value of this	
function. This function gives the $x$ -coordinates of	
points on the unit circle. Name this function that,	
for an acute angle in a right triangle, equals the	
adjacent side length over the hypotenuse length.	

#### **Question #30: Social Studies**

While working for this company, Heard Baumeister	IBM or International
[BAO-my-stur] and George Laurer developed the	Business Machines
first Universal Product Code barcodes. Research by	
this company is also responsible for LASIK eye	
surgery and scanning tunneling microscopes. This	
company's German subsidiary Dehomag	
[deh-HOH-mag] helped the Nazis track their	
populations using punch cards. This company was	
given its current name by its long-time leader	
Thomas Watson, who is the namesake of one of its	
recent supercomputers. Name this computer	
company that is nicknamed "Big Blue" and which	
developed the PC first used to run Microsoft	
Windows.	



# Round 5 5th Section Toss-up Questions

#### **Question #31: Science**

10 points

Lesions in this organ can cause Klüver-Bucy	<u>brain</u>
[KLOO-vur BOO-see] syndrome, which leads to	
inappropriate eating. The build-up of tau proteins	
in this organ leads to Pick's disease. One part of	
this organ contains the dentate gyrus [DENT-"ate"	
JY-russ] and is part of the limbic [LIM-bik] system.	
That part of this organ, whose name reflects the	
fact that it is shaped like a seahorse, is the	
hippocampus. The thalamus [THAL-uh-muss] and	
hypothalamus are in this organ. Portions of this	
organ are called the grey matter and white matter.	
Name this organ that contains the cerebellum	
[sair-uh-BELL-um] and cerebrum [suh-REE-brum]	
and is in the head.	

## **Question #32: Literature**

At the end of this novella, 12 voices are shouting in	Animal Farm
anger because two characters played the ace of	
spades simultaneously. One of the aces of spades is	
played by the owner of Foxwood, Mr. Pilkington.	
The other ace of spades played at the end of this	
novella is played by a character who falsely claimed	
both to have come up with the idea of building a	
windmill and to be a hero of the Battle of the	
Cowshed. Many critics have compared this	
novella's Battle of the Cowshed to the Russian	
October Revolution. In this novella, Napoleon and	
Snowball lead a revolution and are pigs. Name this	
novella by George Orwell.	



## Round 5 Extra Section Toss-up Questions

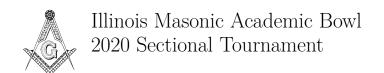
#### **Extra Question #1: Mathematics**

10 points

One theory of these entities is called the	mathematical <b>proof</b> s
Gentzen-type based on Gentzen's development of	
sequent calculus and his use of the consistency	
types of these entities. Some of these entities are	
classified as being "by exhaustion", including many	
computer-assisted examples such as the one by	
Kenneth Appel and Wolfgang Haken on the four	
color theorem. When these entities use a basis step	
and an inductive step they are classified as being	
"by induction". The abbreviation "Q.E.D." is	
sometimes written at the end of these entities.	
Name these rigorous mathematical arguments that	
geometry students often write in two columns.	

#### **Extra Question #2: Fine Arts**

A work by this composer features the voice of the	Edward <b>Elgar</b>
Angel of Agony and is based on a poem by	
Cardinal John Henry Newman. In that work by	
this composer, an old man—who is the	
protagonist—ends up in Purgatory. Another song	
by this composer has a repeated rhythm of a half	
note, two eighth notes, quarter note, three half	
notes, two eighth notes, quarter note, dotted half	
note. Another work by this composer consists of	
variations dedicated to people he knew, though	
Augustus Jaeger [YAY-gur] is called Nimrod. Name	
this English composer of <i>The Dream of Gerontius</i>	
and Enigma Variations whose Pomp and	
Circumstance Marches are often played at	
graduations.	



# Round 5 Extra Section Toss-up Questions

#### **Extra Question #3: Social Studies**

10 points

(T 1 1 T 1 1 1 0)
(Federal Republic of)
Somalia

## **Extra Question #4: Science**

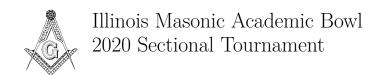
This bone's bicipital [bih-SIP-ih-tull] groove	<u>humerus</u>
separates its greater tubercle [TOO-bur-kull] and	
lesser tubercle. The end of this bone has a	
capitulum [kuh-PICH-yoo-lum], which extends from	
the lateral epicondyle [ep-uh-KAHN-"dial"]. This	
bone articulates with another bone's glenoid fossa.	
The pectoralis major muscle flexes and rotates this	
bone. This bone is stabilized by the rotator cuff,	
which keeps it in another bone's socket. This bone	
is not the ulna, but a sensation that seems to come	
from it is from the ulnar nerve. This bone goes	
from the scapula to the radius and ulna. Name this	
bone of the upper arm.	



# Round 5 Extra Section Toss-up Questions

#### **Extra Question #5: Literature**

In this novel, a woman takes a letter from under a	The <b>Awakening</b>
bust of Beethoven and hands it to the protagonist,	
who asks whether the man writing the letters	
knows both women read them. Shortly after that,	
the protagonist buys bonbons for her sons in	
Iberville. Those letters, which are shared by	
Mademoiselle Reisz [reess], tell this novel's	
protagonist that Robert Lebrun will soon be in	
town. The protagonist in this novel is married to	
Léonce [lay-awnss], and they live in New Orleans	
and vacation on Grand Isle. Name this short novel	
about Edna Pontellier [pawn-tell-yay] written by	
Kate Chopin.	



#### **Extra Question #6: Literature**

10 points per part

Thi	s short story describes an event that starts	
arou	and 10 a.m. so participants can get home for	
noo	n dinner.	
1	Name this story in which Tessie Hutchinson	"The <b>Lottery</b> "
	gets a slip of paper with a black mark on it.	
2	In "The Lottery", Mr. Summers runs this type	<u>coal</u> company [accept <u>coal</u>
	of business. The lottery box is stored in his safe.	business; do not accept
		putatively related answers
		like "mining"]
3	This author wrote "The Lottery". She also	Shirley (Hardie) <u>Jackson</u>
	wrote The Haunting of Hill House.	

### **Extra Question #7: Literature**

This	s poem states "No more to say, and nothing to	
weej	p for but the Beings in the Dream."	
1	Name this poem that begins "Strange now to	" <b>Kaddish</b> for Naomi
	think of you, gone without corsets and eyes,	Ginsberg (1894–1956)"
	while I walk on the sunny pavement of	
	Greenwich Village."	
2	This poet wrote "Kaddish" shortly after writing	(Irwin) Allen <b>Ginsberg</b>
	"Howl".	
3	In the second section of "Howl", Ginsberg often	Moloch
	repeats this name for a character he refers to as	
	the loveless and the heavy judger of men.	



#### **Extra Question #8: Mathematics**

10 points per part

All	but two of the faces of this type of solid need	
to b	e parallelograms and are usually rectangles.	
1	Name this type of solid with two parallel bases	$\mathbf{prism}(\mathbf{s})$
	that are congruent polygons.	
2	Find the volume of a triangular prism if each of	$\underline{2}$ times the square $\underline{\mathbf{root}}$ of
	its edges is two units long.	$\underline{3}$ (cubic units) [accept $\underline{2}$
		times <u>radical 3</u> (cubic
		units); do not prompt on
		partial answers]
3	Find the total surface area of a rectangular	22 square units
	prism if it has edges of length 1 unit, 2 units,	
	and 3 units.	

#### **Extra Question #9: Mathematics**

Pro	positions 16 and 32 in Euclid's <i>Elements</i> are	
theo	orems involving this type of angle.	
1	Name this type of angle between the extension	$\underline{\mathbf{external}}$ angle(s) or
	of one side of a polygon outside of the polygon	$\underline{\mathbf{exterior}}$ angle(s)
	[pause] and the side adjacent to the extended	
	side.	
2	Find the measure, in degrees, of an external	<u>60</u> degrees
	angle in a quadrilateral if the three other	
	external angles each measure 100 degrees.	
3	Find the measure, in degrees, of each external	<u>30</u> degrees
	angle of a regular dodecagon	
	[doe-DEH-kuh-gon].	