

Round 1 1st Section Toss-up Questions

Question #1: Mathematics

10 points

An integral along a path or curve is commonly	<u>line</u> s
named for this shape even when the path is not this	
shape. In polar coordinates, this shape is generated	
by graphing r equals the secant of theta. Playfair's	
axiom, which begins with one of these shapes and a	
point not on it, is equivalent to Euclid's	
[YOO-klid'z] parallel postulate, which describes	
where two of these shapes meet. A transversal is	
one of these shapes that crosses two others of these	
shapes. Name these entities that are infinitely long	
and straight.	

Question #2: Literature

In this novel, a light truck swerves to hit a turtle,	The Grapes of Wrath
making the turtle flip. A character in this novel	
who has not been home for four years wraps the	
turtle in his coat to take it home to his little	
brother, and on the way home he shows it to a	
former preacher, who goes home with him. Later in	
this novel, that little brother—Al—falls in love	
with Agnes Wainwright. By the end of this novel,	
their family is abandoned by Connie Rivers, even	
though Rose of Sharon is pregnant. Much of this	
novel is set on Route 66 on the way to California.	
Name this novel about the Joad family from	
Oklahoma, written by John Steinbeck.	



Round 1 1st Section Toss-up Questions

Question #3: Miscellaneous

10 points

This person helped write and sing Adam Lambert's song "Fever". At the 2010 MTV Video Music Awards, this person wore a dress made of raw beef. In an episode of *The Simpsons* in which Lisa writes a blog titled "Truth Teller", this person appears in Springfield and performs the song "Little Monsters", which is what she usually calls her fans. This person was nominated for an Academy Award for the song "Til It Happens to You" and won an award for the song "Shallow". Name this co-star of the movie A Star Is Born whose hits include "Alejandro", "Poker Face", and "Born This Way".

Lady <u>Gaga</u> or [Stefani (Joanne Angelina) Germanotta]

Question #4: Science

10 points

Some animals in this class go for several months each year during which they drink water but do not eat, which is their brumation [broo-MAY-shun] period. An early animal in this class is the hylonomus ["hi"-LAH-nuh-mus], which lived during the Late Carboniferous [kar-buh-NIFF-ur-uss] period. The tuataras [too-uh-TAH-ruhz] in this class live only in New Zealand. Many of the animals in this class are either Testudines [tes-TOO-duh-nees] or Squamata [skwah-MAH-tuh]. The sauropsids [suh-RAHP-sidz] evolved into birds and these animals. These ectothermic [EK-toh-THUR-mik] vertebrates have dry, scaly skin. The dinosaurs belonged to this class. Name this class of animals that includes turtles and lizards.

reptiles [or reptilia]



Round 1 1st Section Toss-up Questions

Question #5: Social Studies

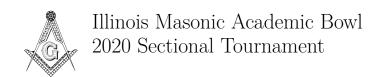
10 points

Alexander Berkman and Emma Goldman started a league opposed to this process, leading to two-year jail sentences for them. When this process was introduced in the United States, people could hire a substitute or pay 300 dollars to avoid it. The ability of wealthy people to avoid this process was a factor behind a massive riot in New York City, which turned into a race riot, in 1863. During the Vietnam War, many men burned cards they were supposed to carry with them; those cards were supposed to show they took part in this process. Some people avoid this process by being declared conscientious objectors. Name this process of compulsory enlistment into the armed forces.

military <u>draft</u> or military <u>conscription</u> [or being <u>draft</u>ed or <u>conscript</u>ed; accept answers that additionally specify it's registration for the draft; prompt on <u>Selective</u> <u>Service</u> System; prompt on <u>military service</u>]

Question #6: Literature

In one novel by this author, Jacquin Labarre	Victor (Marie) <u>Hugo</u>
[jak-wan luh-bar]—who is the host of an	
inn—refuses to feed or house a traveler after	
hearing who that traveler is. This author then	
describes how that traveler uses the name	
"Monsieur Madeleine" and becomes the mayor of a	
town. In another novel by this author, a fictional	
version of the poet Pierre Gringore [gran-gor]	
watches an attempted kidnapping that is foiled by	
Captain Phoebus [FEE-buss]. That kidnapping is	
ordered by Claude Frollo in this author's book	
about Esmeralda and Quasimodo. Name this	
author who wrote about Jean Valjean [zhahn	
val-zhahn] in Les Misérables [lay mee-zair-ahb'l]	
and who wrote <i>The Hunchback of Notre-Dame</i> .	



Question #7: Fine Arts

10 points per part

This	s musical is based on a comic strip by Harold	
Gra	y.	
1	Name this musical about a little orphan who is	Annie
	taken in by "Daddy" Warbucks.	
2	Annie sings this optimistic song that says the	"Tomorrow"
	title concept is "always a day away". After	
	Annie sings this song, Franklin Roosevelt gets	
	his Cabinet to sing it.	
3	In contrast, Miss Hannigan sings this song	"Little Girls"
	stating "Some women are dripping with	
	diamonds; some women are dripping with	
	pearls. Lucky me! Lucky me! Look at what I'm	
	dripping with."	

Question #8: Fine Arts

This	s musical was inspired by a biography written	
by I	Ron Chernow [CHUR-"now"].	
1	Name this Lin-Manuel Miranda musical	$\underline{Hamilton}$
	featuring songs such as "The Room Where It	
	Happens" and "The Reynolds Pamphlet".	
2	After "The Reynolds Pamphlet", Hamilton's	"Burn"
	wife Eliza sings this song while destroying	
	letters written between them.	
3	At the beginning of "The Room Where It	General Hugh Mercer
	Happens", Aaron Burr talks about the	
	renaming of Clermont Street in honor of this	
	general, saying that his legacy is secure.	



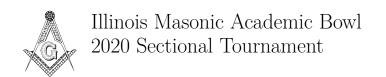
Question #9: Science

10 points per part

Bar	s and torrs are units for this physical quantity.	
1	Name this quantity defined as force per unit	pressure
	area.	
2	This rule states that in incompressible fluid	Bernoulli's
	flow, the total pressure, plus the quantity	[bair-NOO-lee'z] principle
	density times gravitational field strength times	
	height, is constant.	
3	This set of equations that use continuity,	Navier-Stokes [nahv-yay
	momentum, and energy are more versatile than	"stokes"] equations
	Bernoulli's principle. There is a million-dollar	
	prize available to anyone who proves that they	
	have well-behaved solutions.	

Question #10: Science

Thi	s quantity is usually measured in amperes.	
1	Name this quantity equal to the rate of flow of electric charge.	electric <u>current</u>
2	This quantity is a measure of a specific object's ability to carry electric current. It equals current divided by electric potential difference, and it also is the reciprocal of resistance.	conductance [do not accept "conductivity"]
3	According to this law, the electric current generated by a current-carrying wire is proportional to the current divided by the square of the distance from the wire. It is usually expressed using an integral.	Biot-Savart [bee-oh sah-var] law



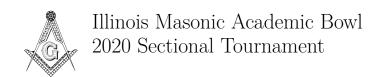
Question #11: Social Studies

10 points per part

Afte	er people tried to find this route for centuries,	
Roa	ld Amundsen finally navigated it in 1903.	
1	Give this term for a route from the Atlantic	Northwest Passage
	Ocean to the Pacific involving what is now	
	Canada.	
2	In 1611, this English explorer was kicked off his	Henry Hudson
	ship by his crew while searching for the	
	Northwest Passage. A strait, river, and bay are	
	now named for him.	
3	This half-brother of Sir Walter Raleigh	Humphrey Gilbert
	[RAH-lee] inspired searches by writing A	
	Discourse of a Discovery for a New Passage to	
	Cataia [kuh-TIE-uh]. He died while returning	
	from Newfoundland [NOO-fund-lund].	

Question #12: Social Studies

Wh	en neither side abided by this document, Pope	
Inno	ocent III annulled it, leading to the First	
Bar	ons' War.	
1	Name this document signed in 1215 in	Magna Carta
	Runnymede, England that gave legal rights to	(Libertatum)
	barons and lesser rights to serfs.	
2	This king signed the Magna Carta. He died the	King <u>John</u> (Lackland)
	next year and was succeeded by his son, Henry	
	III.	
3	Henry III defeated this king of France, who	Louis VIII [or Louis
	aided the barons and for a time claimed to be	Coeur-de-lion or Louis
	the king of England.	the Lion-heart; prompt
		on <u>Louis</u>]



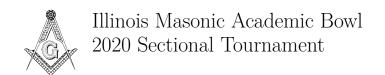
Question #13: Literature

10 points per part

Som	ne fictional dogs are good dogs, and some	
ficti	onal dogs are bad dogs.	
1	This Daniel Defoe character got the captain's	Robinson Crusoe [accept
	dog and two cats when he survived a shipwreck.	either]
	The dog helped him hunt so he could survive on	
	an island.	
2	In this novel by Charles Dickens, Bill Sikes	Oliver Twist [do not
	owns the dog Bull's-eye, who looks "as if he	accept or prompt on
	were anxious to attach himself to [the title	"Oliver"]
	character's] windpipe without delay."	
3	In this play by William Shakespeare, Crab is	The Two Gentlemen of
	"the sourest-natured dog that lives". Crab is	\underline{Verona}
	owned by Launce, the servant of Proteus in this	
	play.	

Question #14: Literature

The	title character in this play is told to "Beware	
the	ides of March."	
1	Name this William Shakespeare play about a	(The Tragedy of) Julius
	leader of ancient Rome.	\underline{Caesar}
2	In Julius Caesar, Mark Antony gives a speech	"Friends, Romans,
	beginning with these three words to define his	countrymen"
	audience. Those words are followed by "lend	
	me your ears".	
3	Before Antony's speech, Brutus used this	ambitious
	adjective to describe Caesar, explaining why he	
	killed him. Antony says several times in his	
	speech that Brutus says Caesar was this	
	adjective.	



Round 1 3rd Section Toss-up Questions

Question #15: Social Studies

10 points

A large part of this U.S. state is taken up by the	Washington (state)
Colville Indian Reservation, and another of its	
reservations includes part of Mount Adams. One of	
the earliest white settlements in what is now this	
state was Fort Nez Percés [PER-suh] near what is	
now the town of Walla Walla. Though most of this	
state's major cities are in its west near Puget	
[POO-jut] Sound, its second-most populous city is	
the site of Gonzaga University, which is Spokane	
["spoke-Ann"]. This state contains the original	
headquarters of Amazon and Microsoft and is the	
location of Mount Rainier [ruh-NEER]. Name this	
state whose capital is Olympia and whose most	
populous city is Seattle.	

Question #16: Science

These objects are classified into the C-group,	asteroids [accept minor
S-group, X-group, or eleven other groups according	planet s or planetoid s; do
to Tholen classification, which is similar to the	not prompt on "planet(s)"]
SMASS classification of these objects. The moon	
Dactyl [DAK-tul] goes around one of these objects	
called Ida ["EYE"-duh]. The spacecraft	
OSIRIS-REx is collecting a sample from one of	
these objects named Bennu. The spacecraft Dawn	
orbited one of these objects named Vesta before	
orbiting the largest of these objects, which is also	
the dwarf planet nearest to Earth. Name these	
rocks, most of which are in a belt between Mars	
and Jupiter.	



Round 1 3rd Section Toss-up Questions

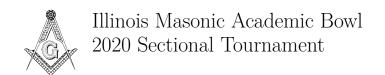
Question #17: Literature

10 points

In one novel by this author, two characters move to	Thomas Hardy
Weatherbury after the woman rejects the man's	
marriage proposal. In that novel, Gabriel goes to a	
hiring fair in a town that this author later used as	
the primary setting of a novel in which a man	
breaks off an engagement with Lucetta Templeman.	
In that later novel, this author wrote about two	
characters named Elizabeth-Jane, one of whom is	
auctioned off with her mother to Richard Newson.	
Name this author who wrote about Bathsheba	
Everdene in Far from the Madding Crowd and	
about Michael Henchard in The Mayor of	
Casterbridge.	

Question #18: Fine Arts

The oldest temple in this city is dedicated to the	Tokyo, Japan
bodhisattva [boh-dee-SAHT-vuh] Kannon, is	
entered through the Thunder Gate, and was built	
in the seventh century. A tower that opened in	
2012 in this city is the tallest tower in the world	
and, other than the Burj Khalifa, the tallest	
structure. That tower is this city's Skytree.	
Another tower in this city is painted white and	
orange but shaped like the Eiffel Tower. This city's	
Imperial Hotel was designed by Frank Lloyd	
Wright, though little remains of his work. Name	
this capital city whose National Diet Building	
houses the national legislature and was designed by	
Watanabe Fukuzo [wah-tah-nah-bay foo-koo-zoh].	



Round 1 3rd Section Toss-up Questions

Question #19: Social Studies

10 points

This leader had an affair with Margherita Sarfatti
["margarita" sar-FAH-tee], who wrote a biography
about him, but she left his country around the time
his government published the Manifesto of Race
and passed racial laws. When King Zog refused to
renew the Treaty of Tirana, this person made
Albania a protectorate. During the Abyssinia
[ab-uh-SIN-ee-uh] Crisis, this leader ignored the
League of Nations and invaded Ethiopia. This
person often used bound wood as a symbol for his
political movement. Name this leader of Italy who
led the Fascist Parties and was killed by Italians
near the end of World War II.

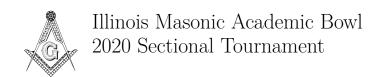
Benito (Amilcare Andrea) Mussolini

Question #20: Science

10 points

The log of vapor pressure is related to this quantity in the Antoine [ant-wahn] equation. According to the Stefan [STEFF-un]-Boltzmann law, radiant emittance is proportional to the fourth power of this quantity. In a Carnot [kar-noh] cycle, two steps have constant heat, and this quantity is constant in the two other steps. The change in energy in a system equals the heat capacity times the change in this quantity. Gibbs free energy equals enthalpy minus entropy times this quantity. In the ideal gas equation, this quantity is multiplied by the number of moles and the gas constant. Name this quantity that can be measured in kelvins.

(absolute) temperature



Question #21: Literature

10 points per part

Ima	ges depicting these sisters were often made on	
the	bottoms of bowls and tops of jars.	
1	Name this group of ugly sisters that included	<u>Gorgon</u> s
	Stheno [s'THEE-noh] and Euryale	
	[yoor-"EYE"-uh-lee]. They were immortal, and	
	the other sister in this trio was mortal.	
2	Name the mortal Gorgon whom Perseus	Medusa
	beheaded.	
3	This king sent Perseus on a mission to get the	Polydectes
	head of Medusa. He was interested in Perseus's	[pah-lee-DEK-teez]
	mother Danaë [DAN-ay-ee].	

Question #22: Literature

Ider	tify these mortals from Greek mythology:	
1	This person killed Hector but was killed when	Achilles
	Paris shot him in the heel.	
2	This person used a ball of thread to escape the	Theseus [THEE-see-uss]
	Labyrinth after he killed the Minotaur	
	[MIN-oh-tor].	
3	This person finished off the Calydonian	Meleager [mel-ee-AY-gur]
	[kal-uh-DOH-nee-un] Boar after Atalanta	
	injured it.	



Question #23: Science

10 points per part

This	s element has the highest known electrical and	
ther	emal conductivity.	
1	Name this element whose Latin name is	$\underline{\mathbf{silver}}$ [prompt on $\underline{\mathbf{Ag}}$]
	"argentum" [ar-JEN-tum].	
2	Silver sulfide leaves a black mark on silver,	silver <u>tarnish</u>
	which is known by this term.	
3	Silver is used as a catalyst to create	methanol [or methyl
	formaldehyde [for-MAL-duh-"hide"] from this	alcohol; accept wood
	compound.	alcohol; do not prompt on
		"alcohol"]

Question #24: Science

Nicl	kel and this element are the most abundant	
elen	nents in the Earth's core.	
1	Name this primary ingredient in steel.	<u>iron</u> [accept <u>Fe</u>]
2	In this process, steel or iron is coated with zinc	galvanization [or
	to prevent rust.	galvanizing]
3	This compound was the first one found to	nitric acid [or HNO ₃ ;
	protect iron through passivation	prompt on spirit of niter]
	["passive"-AY-shun]. This compound is	
	sometimes called "aqua fortis".	



Question #25: Social Studies

10 points per part

In (October 2019, the United States announced	
that	it was sending an additional 1,800 troops to	
this	country.	
1	Name this country that murdered the journalist	(Kingdom of) Saudi
	Jamal Khashoggi [kuh-SHOHG-ee] in Turkey in	Arabia [or al-Mamlakah
	2018 and which has played a major role in the	al- Arabiyah
	Yemen Civil War.	as- <u>Suudiyah</u>]
2	This person became the king of Saudi Arabia in	<u>Salman</u> bin Abdulaziz Al
	2015.	Saud [prompt on <u>Saud</u>]
3	This president of Yemen moved to Saudi Arabia	Abdrabbuh Mansur <u>Hadi</u>
	in 2015 when the Houthi [HOO-thee] movement	
	took over Yemen's presidential palace.	

Question #26: Social Studies

At t	the federal level, this value was first established	
by t	the 1938 Fair Labor Standards Act, which set	
it at	t 25 cents.	
1	Name this value that was increased at the	minimum (hourly) wage
	federal level to \$7.25 in 2009, though it is	(rate)
	higher in many places.	
2	All of the major Democratic 2020 presidential	\$ <u>15</u> per hour
	candidates supported raising the minimum	
	wage to this value. The Raise the Wage Act	
	would increase it to this value by 2025.	
3	A recent major minimum-wage study compared	Pennsylvania
	this state with the federal minimum wage to a	
	neighboring state with a higher minimum wage.	
	This state's governor, Tom Wolf, wants to raise	
	the minimum wage.	



Question #27: Mathematics

10 points per part

Trig	gonometric [TRIG-uh-noh-"metric"] functions	
have	e this property because they satisfy the	
rela	tionship " f of x always equals f of the	
qua	ntity x plus some fixed constant".	
1	Name this property that a function has if it	period icity or period ic
	repeats the same values regularly.	function
2	This periodic shape is generated by tracing the	cycloid
	path of a point on the rim of a rolling circle.	
3	Find the period of the function " f of x equals 7	pi over 3 or pi divided
	plus 5 times the tangent of $3x$ ". Assume x is in	$\underline{\text{by } 3} \text{ or } \underline{1/3 \text{ pi}}$
	radians.	

Question #28: Mathematics

Con	sider a histogram with equal-sized bins and	
the	measured values along the horizontal axis.	
1	What quantity would be on the vertical axis? It	(relative or absolute)
	might be relative or absolute.	<u>frequency</u>
2	This term describes histograms that are	skew ed histograms [accept
	lopsided rather than approximately symmetric.	$\underline{\mathbf{skew}}$ ness]
	Their mode differs significantly from their	
	mean.	
3	Find the relative frequency of a value if an	0 <u>.15</u>
	experiment involved 40 total measurements and	
	the value was measured 6 times. Give your	
	answer as a decimal.	



Round 1 5th Section Toss-up Questions

Question #29: Literature

10 points

Near the beginning of this short story, the narrator	"The <u>Cask of</u>
states "A wrong is unredressed when retribution	$\underline{\mathbf{Amontillado}}$ "
overtakes its redresser." This story's narrator says	
another character, "did not perceive that my smile	
now was at the thought of his immolation." Later	
in this story, the narrator demonstrates that he is a	
mason by taking out a trowel, and he eventually	
uses that trowel to wall up an entrance-way,	
trapping somebody inside. The person trapped	
during this story is Fortunato ["fortune"-AH-toh].	
Name this short story about Montresor taking	
revenge by luring his enemy using a large container	
of wine, written by Edgar Allan Poe.	

Question #30: Science

In double slit-interference, there is constructive	$\underline{\text{wavelength}}$
interference where the distance between slits, times	
the sine of the angle a ray makes with the normal,	
is an integer multiple of this property. The Bragg	
condition for constructive interference is that $2d$	
sine theta is an integer multiple of this property.	
This quantity is fairly large for radio waves but	
very small for gamma rays and X-rays. This	
quantity equals a wave's speed divided by	
frequency. For visible light, this quantity ranges	
from 380 to 740 nano·meters. Give this term for the	
distance between successive wave crests.	



Round 1 5th Section Toss-up Questions

Question #31: Social Studies

10 points

Many countries have a Martyrs' Day; this country's Martyrs' Day commemorates a 1964 effort to take down an American flag and replace it with this country's flag. That incident may have influenced the creation of the 1977 Torrijos [toh-REE-hohss]-Carter Treaties between this country and the U.S., which went into effect at the end of 1999 and abolished the Hay-Bunau-Varilla [boo-"NO" vah-REE-yah] Treaty. During Operation Just Cause in 1989, the U.S. captured this country's ruler, Manuel Noriega [man-oo-EL noh-ree-AY-gah]. Name this country whose independence from Colombia in 1903 was supported by the U.S. to build a canal between the Atlantic and Pacific Oceans.

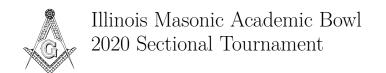
(Republic of) **Panama** or (República de) **Panamá**

Question #32: Mathematics

10 points

In Thales' [THAY-leez'] theorem, this type of segment is the diameter of a circle. The length of the altitude drawn to this segment is the geometric mean of the lengths of the segments the altitude divides this segment into. The altitude drawn to this segment creates two new triangles that are similar to the original. The length of this segment is the numerator in the triangle-based definition of secant and in the denominator in the triangle-based definition of sine. The length of this segment is represented by the largest number in a Pythagorean triple. Name this segment whose length is represented by the letter c in the equation "a squared plus b squared equals c squared".

hypotenuse of a right triangle [prompt on (longest) <u>side</u> of a right triangle; do not prompt on answers containing "leg"]



Round 1 Extra Section Toss-up Questions

Extra Question #1: Fine Arts

10 points

Rebecca Clarke, who performed on this instrument,	<u>viola</u>
wrote a sonata for the piano and this instrument.	
While a soloist on cello represents the title	
character in Richard Strauss's [reek-hart shtrowss'z]	
Don Quixote, a soloist on this instrument	
represents Sancho Panza. Béla Bartók died while	
writing a concerto for this instrument for William	
Primrose to perform. This is the lead instrument in	
Hector Berlioz's Harold in Italy. The lowest string	
on this instrument is pitched an octave below	
middle C. Name this instrument that joins with a	
cello and two violins to form a string quartet.	

Extra Question #2: Science

This organ has curled pieces of bone called	nose
turbinates [TUR-buh-nits] or conchae [KON-kee],	
and it also has the major and minor alar cartilages.	
The top of this organ has the ethmoid bone, which	
is also known as the cribiform [KREE-buh-form]	
plate. This organ is just above and in front of the	
palatine [PAL-uh-tyn] bones. One of the purposes	
of this organ is to be a passageway to the brain's	
glomerulus [gloh-MAIR-yoo-luss]. Surgery on the	
cartilage in the middle of this organ is called	
septoplasty [SEP-toh-plass-tee], and other surgeries	
on this organ are called rhinoplasty. The sinus	
cavities are above and next to this organ. Name	
this principal organ of the olfactory system that has	
two nostrils.	



Round 1 Extra Section Toss-up Questions

Extra Question #3: Literature

10 points

This author started one novel with the protagonist on the wrong train, thinking he is going to Cremona. This author's protagonist in that novel teaches at Waindell College even though it has few Russian students. At the end of the short first chapter of another novel by this author, the protagonist writes "Look at this tangle of thorns." That novel is supposedly based on *The Confession of a White Widowed Male*. In that novel, this author portrays a protagonist who had a relationship with Annabel Leigh and then goes after Dolores Haze. Name this author of *Pnin* who wrote about Humbert Humbert in *Lolita*.

Vladimir (Vladimirovich)
Nabokov [nah-BOH-kawf]

Extra Question #4: Mathematics

10 points

Efforts to perform this action systematically and efficiently can lead to the table-maker's dilemma. Edward Lorenz noticed that performing this action in seemingly inconsequential ways can have a major impact when he developed the butterfly effect. A common form of this process is equivalent to either subtracting 1/2 and performing the ceiling function [pause] or adding 1/2 and performing the floor function. This process makes a number larger when the first eliminated digit is greater than 5, and it makes a number smaller when the first eliminated digit is less than 5. The eliminated digits are in the least significant places. Name this approximation process that might be done "to the nearest whole number".

rounding [prompt on
approximating or
approximations]



Round 1 Extra Section Toss-up Questions

Extra Question #5: Social Studies

Part of this place is the Great Bitter Lake, which	Suez Canal [prompt on
was the location of the Yellow Fleet during the late	partial answer]
1960s and early '70s. The Convention of	
Constantinople was an international agreement over	
this piece of infrastructure, continuing a policy that	
Ferdinand Marie de Lesseps [duh les-ep] had agreed	
to. The United Nations Emergency Force	
Peacekeepers were used to end a crisis over this	
place that involved a failed alliance between France,	
the United Kingdom, and Israel. That crisis	
occurred after this infrastructure was nationalized	
in 1956 by Gamal Abdel Nasser. Name this	
waterway connecting the Mediterranean Sea to the	
Red Sea.	



Extra Question #6: Mathematics

10 points per part

Thi	s way to write the equation for a line is often	
mor	e convenient than slope-intercept form and	
can	easily be simplified into slope-intercept form.	
1	Name this form expressed by the equation " y	point-slope form
	minus y -sub-1 equals m times the quantity x	
	minus x -sub-1".	
2	Find the y-intercept of the line whose equation	$\underline{5}$ [accept $y = \underline{5}$ or $(\underline{0},\underline{5})$;
	is " y minus 9 equals 2 times the quantity x	do not accept " $(5,0)$ "]
	minus 2".	
3	Give the equation, in point-slope form, of the	y - 25 = 10(x - 5)
	line tangent to the graph of " y equals x	
	squared" at the point where x equals 5. Use the	
	point of tangency as the point in your equation.	

Extra Question #7: Mathematics

This	s concept is used to find denominators when	
add	ing or subtracting fractions.	
1	Give this term for the smallest positive number	least common multiple
	that two given numbers are both a factor of.	or <u>lowest common</u>
	Don't include the word "denominator" in your	multiple [accept LCM;
	answer.	accept smallest common
		$\underline{\mathbf{multiple}}]$
2	Find the least common multiple of 12 and 20.	<u>60</u>
3	Find the smallest integer greater than 1 that is	<u>7</u>
	a factor of the least common multiple of 13 and	
	77.	



Extra Question #8: Literature

10 points per part

One	character in this novel sees a picture of	
hers	self and Lydia in <i>Life</i> magazine.	
1	Name this novel about the Smales [SMAY-ulz]	July's People
	family and their relationship with the title	
	servant.	
2	July's People was written by this South African	Nadine Gordimer
	novelist who died in 2014. She also wrote about	
	the businessman Mehring in <i>The</i>	
	Conservation ist.	
3	In this other novel by Gordiner, Rosa has the	The Burgher's
	title relationship with a deceased	$\underline{Daughter}$
	anti-Apartheid ["apart-aid"] activist. Rosa is	
	arrested for aiding her childhood friend Baasie	
	in a violent revolt.	

Extra Question #9: Literature

This	s character says that her eyes are dazzled and	
that	her trembling knees refuse to support her.	
1	Name this title character of a play based on	Phèdre [fed-ruh]
	mythology who tells her nurse Oenone	
	[ee-NOH-nee] about her love for her stepson.	
2	The play <i>Phèdre</i> was written by this French	Jean(-Baptiste) Racine
	author. He also wrote Andromaque.	
3	Jean Racine had a rivalry with this author of	Pierre <u>Corneille</u> [kor-neh]
	Le Cid [leh seed].	