

NEW TRIER VARSITY 2008

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Round 3: Hockey Moms Without the Lipstick

Bonuses

1. (MS) Answer each of the following about related musical settings of the myth of Orpheus for 10 points each:

[10] The first great opera, *La favola d'Orfeo*, is a setting of Orpheus by this Italian composer, also known for *The Combat of Tancred and Clorinda* and many books of madrigals and motets.

ANSWER: Claudio **Monteverdi**

[10] This nineteenth-century French composer's *Orpheus in the Underworld*, notable for its cancan, is in part a burlesque of Monteverdi's opera.

ANSWER: Jacques **Offenbach**

[10] This twentieth-century composer constructed his opera *Orpheus*, part of his *Lamenti*, based on Monteverdi's opera. He is better known for his *Musik für Kinder* and *Carmina Burana*.

ANSWER: Carl **Orff**

2. (GG) Answer the following about historical mathematics for 10 points each.

[10] The Greeks and Romans had a version of this calculating device, but the best known version is the Chinese one, with rods consisting of five beads below a partition and two beads above.

ANSWER: **abacus** (prompt on **suanpan**)

[10] The Babylonians used this base for their numbering system. It is still used today in the division of degrees into minutes and seconds.

ANSWER: base **60** or **sexagesimal** or **hexagesimal** (do not accept **sexadecimal** or **hexadecimal**)

[10] In the 3rd century BCE, Archimedes used this method to determine an approximation of pi. With inscribed and circumscribed 96-gons, his approximation was less than a tenth of a percent away from the true value of pi.

ANSWER: method of **exhaustion**

3. (JG) Name the following about a novel whose three books include "Recalled to Life" and "The Track of a Storm", in which a revolutionary knits a list of the names of people to kill.

[10] That woman, Madame Defarge, is featured along with Lucie Manette and a pair of lookalikes in this novel that begins "It was the best of times, it was the worst of times...".

ANSWER: A **Tale of Two Cities**

[10] The French one of the lookalikes is this man. An aristocrat by birth, he rejects his heritage and switches places with Sydney Carton to avoid dying.

ANSWER: Charles **Darnay** (prompt on first name)

[10] This is the name of Lucie Manette's maid. Her brother Solomon uses the alias John Barsad.

ANSWER: Miss **Pross**

4. (JG) It can be used to stabilize some explosives, in teeth whitening, and to make pretzels brown, and was first created from ammonium cyanate [SI uhn ayt]. For 10 points each:

[10] Identify this organic compound whose formula is NH_2 , quantity two, CO, the first organic compound to be synthesized using laboratory procedures.

ANSWER: urea or carbamide

[10] This German chemist created urea. He also co-discovered silicon and developed a process for obtaining pure nickel.

ANSWER: Friedrich Wöhler

[10] In mammals, the urea cycle takes place only in this bile-producing organ that has four lobes, including the caudate lobe.

ANSWER: the liver

5. (JG) It can have two, three, three and a half, or four chambers, and its cycle happens anywhere from twenty-five to one thousand times a minute. For 10 points each:

[10] Name this organ found in many animals that is surrounded by the pericardium.

ANSWER: heart

[10] This is also known as the bicuspid valve or left atrioventricular valve. It allows blood to flow into the left ventricle.

ANSWER: mitral valve

[10] This genetic disorder named after a French doctor causes defects in the aorta among other symptoms such as long limbs. Abraham Lincoln is thought to have suffered from it.

ANSWER: Marfan syndrome

6. (JG) Identify the following international accords for 10 points each:

[10] Anwar Sadat met with Menachem Begin [BAY gen] at the namesake retreat to sign these accords. Jimmy Carter oversaw the negotiations, which contributed to his Nobel Peace Prize, and these accords brought peace between Israel and Egypt.

ANSWER: Camp David Accords

[10] Israel was also involved in these accords, the first face-to-face meeting of an Israeli leader with Palestinian leaders. Yitzchak Rabin's assassin said Rabin's 1993 participation in these negotiations was a major factor in shooting him.

ANSWER: Oslo Accords

[10] This Japanese Accord is available in either a four-door sedan or a two-door coupé model. The 2008 model is available in nine different exterior colors, and can get up to 31 miles per gallon on the highway.

ANSWER: Honda Accord

7. (DR) Computational — pencil and paper ready. Let theta be the vertex angle in an isosceles triangle with a base of eight and congruent sides of length five. Find the following:

1. [10] The sine of theta.

2. [10] The cosine of one-half theta.

3. [10] The tangent of the complement of one-half theta. Thirty seconds.

ANSWER 1: 24/25 or 0.96

ANSWER 2: 3/5 or 0.6

ANSWER 3: 3/4 or 0.75

8. (RS) Name these Beatles songs, for 10 points each:

[10] This song's melody came to John Lennon in a dream, and the original words included "scrambled eggs/you have such lovely legs". McCartney wrote the lyrics in Portugal, where he realized all his troubles "seemed so far away".

ANSWER: "**Yesterday**"

[10] This song is named for a Salvation Army orphanage near Lennon's childhood home in Woolton, England. Its line about "cranberry sauce" is often misheard as "I buried Paul".

ANSWER: "**Strawberry Fields Forever**"

[10] Like "Strawberry Fields Forever", this song is named for a real place near Lennon's and McCarthy's childhood homes. This place is a street, notable for a barber, a fireman and a banker.

ANSWER: "**Penny Lane**"

9. (DR) Computational — pencil and paper ready. Solve the following equations for x :

1. [10] The quantity x minus one end quantity divided by the quantity x plus one equals one-tenth.

2. [10] x squared plus thirty-two x plus two hundred fifty-six equals zero.

3. [10] The log base five of x equals three divided by the log base four of five. You have thirty seconds.

ANSWER 1: $x = \frac{11}{9}$ or **1 and 2/9** or **1.2 repeating**

ANSWER 2: $x = \frac{-16}{}$

ANSWER 3: $x = \frac{64}{}$

10. (DR) Answer the following about Coulomb's Law:

[10] Like Newton's Law of Universal Gravitation, Coulomb's Law demonstrates this specific type of variation between force and distance.

ANSWER: **inverse square** variance (accept equivalents, do not accept or prompt on partial answers)

[10] If Coulomb's Law is expressed using the equation F equals k times q sub one times q sub two divided by d squared, and k is expressed in newton-meters squared per coulomb squared as nine times ten to an exponent power, then what is the exponent?

ANSWER: **nine** or **ninth**

[10] Another way of expressing Coulomb's Law uses a different variable known as the permittivity of free space or the vacuum permittivity, a quantity commonly symbolized by this lowercase Greek letter with a subscript of naught.

ANSWER: **epsilon**

11. (DR) Given a polar equation, name the shape:

[10] r equals ten

ANSWER: **circle** (prompt on **ellipse**)

[10] r equals three plus two cosine theta

ANSWER: **limaçon** [lim uh SOHN] of Pascal

[10] r equals two over the quantity one plus sine theta

ANSWER: **parabola**

12. (JG) Frank Willis was the guard on duty when the affairs relating to this scandal were first noticed.

For 10 points each, answer some questions relating to probably the most famous hotel in Washington:

[10] Name the committee whose employees broke into the DNC's offices in the Watergate complex to set off the affair by the same name.

ANSWER: the **Committee to Re-elect the President** or **CREEP** or **CRP**

[10] This reporter for the *Washington Post* worked with Carl Bernstein under Ben Bradlee to cover the Watergate story. He later talked to Scooter Libby about Valerie Plame.

ANSWER: Robert "Bob" Upshur **Woodward**

[10] Bob Woodward used this man, then the associate director of the FBI, as a secret source, in which role he was known by an alias. His real name, which you should give, was revealed in 2005, and he died two days ago. Give the real name.

ANSWER: William Mark **Felt**, Sr.

13. (JG) Here, Napoleon's seventy-two thousand troops lost to one hundred thirteen thousand men under the Prussian general von Blücher and the Duke of Wellington. For 10 points each:

[10] Name this battle, Napoleon's final defeat.

ANSWER: Battle of **Waterloo**

[10] This chateau played a major role in the battle. The British lost about five hundred soldiers defending it.

ANSWER: Chateau of **Hougoumont**

[10] The Battle of Waterloo was fought in this year.

ANSWER: **1815**

14. (DR) Answer the following about current news events.

[10] Liberals are criticizing this pastor who will give the invocation at Barack Obama's inauguration.

ANSWER: Rick **Warren**

[10] People around the world have watched videos of this Iraqi journalist throwing his shoes at President Bush.

ANSWER: Muntadhar al-**Zaidi**

[10] Asif Ali Zardari, the President of this country, is making his first visit to Afghanistan.

ANSWER: **Pakistan**

15. (JG) Why did God create economists? To make weathermen look accurate! Name these basic concepts that economists might use in order to have no clue what's going on for 10 points each

[10] The effects of an economic matter on someone not party to the matter are called this. A common example is the effect of pollution on the community beyond the pollution's producer.

ANSWER: **externality** or **spillover**

[10] This idea refers to a quantification of how much satisfaction a consumer derives from something.

ANSWER: **utility**

[10] If labor is paid more than it would be willing to work for, the difference is called this. Perfect competition eliminates this, but in other markets it still arises.

ANSWER: economic **rent** (accept **rent**-seeking behavior)

16. (DR) Identify these John Steinbeck novels:

[10] This work is about George Milton and Lennie Small. Lennie has the mental capabilities of a small child.

ANSWER: **Of Mice and Men**

[10] Near the beginning of this work, Danny inherits two houses and spends all of his money on wine. Other characters include Pilon and Big Joe.

ANSWER: **Tortilla Flat**

[10] This novel includes a couple named Ivy and Sairy Wilson. Sairy is in a lot of pain.

ANSWER: *The* **Grapes of Wrath**

17. (JG) Those Spanish dudes sure liked art! Name the following paintings by Spanish artists for 10 points each.

[10] This canvas by Diego Velázquez takes place in the court of Philip IV. It shows Infanta Margarita with her attendants, and the King and Queen are visible in a mirror.

ANSWER: *Las* **Meninas** or *The* **Maids of Honor**

[10] A Picasso work from the end of his Rose Period, this work depicts the five titular females in a Cubist style. It has been argued that Picasso depicted the women as having syphilis.

ANSWER: *Les* **Demoiselles d'Avignon** or *The* **Young Ladies of Avignon** (accept *Le* **Bordel** or *The* **Brothel**)

[10] A group of a dozen or so captives stand, disheveled, at the business end of a firing squad in this painting. The victims are scared and include a clergyman, and the French soldiers' faces are not visible.

ANSWER: *The* **Third of May, 1808** or *El* **tres de mayo de mil ochocientos ocho en Madrid** or *Los* **fusilamientos de la montaña del Príncipe Pío** or *Los* **fusilamientos del tres de mayo**

18. (AS/JG) Answer the following about an Italian writer:

[10] A Guelph supporter, this man's works include *La Vita Nuova*, which describes his love for Beatrice Portinari.

ANSWER: **Dante Alighieri** (accept either or both parts)

[10] While in exile from his beloved home city of Florence, he composed his most famous work, a three-part poetic work. Name the title of the overall three-part poem.

ANSWER: *The **Divine Comedy*** or *Divina **Commedia***

[10] Another Italian writer was this contemporary of Dante, who along with Dante and Boccaccio made up the "three fountains". He wrote the *Canzoniere*, which was addressed to Laura.

ANSWER: **Petrarch** or Francesco **Petrarca**

19. (DT) Identify the following mythological trios:

[10] The daughters of Phorcys [for KISS] and Ceto [SEE toh], Perseus slew one member of this group, after which Pegasus sprang to life. Their names are Sthenno, Euryale, and Medusa.

ANSWER: **Gorgons**

[10] Also known as the Moirae [MWAH ray], all were subject to their whims, even the gods. The only figure to defy them was Admetus, who relied on Hercules to get his wife back. This group is Clotho, Lachesis, and Atropos.

ANSWER: **Fates**

[10] The tormentors of Phineus [PHIN ee us], Jason unleashed the Boreads on Aello, Okypete, and Kelaino, this group. They have wings and sharp talons.

ANSWER: **Harpies**

20. (RS) Though the brand names of these products are trademarked, most people use the brand name instead of the generic name. For 10 points each, give the common brand of the following products, given the generic name:

[10] vacuum seal flask, or Dewar flask

ANSWER: **Thermos**

[10] polytetrafluoroethylene

ANSWER: **Teflon**

[10] dichlorodifluoromethane

ANSWER: **Freon** (do not accept chlorofluorocarbons)