

Ohio Fall Kickoff Tournament 2011
Packet by David Jones and Joe Czupryn

1. This man proved that an odd prime can be expressed distinctively as the difference of two squares, and his principle of least time was used to derive Snell's law. $2^n - 2^{n-2} + 2^{n-4} - \dots + 1$ for any integer n gives his namesake "numbers." His most famous problem, related to the Taniyama-Shimura conjecture, was scribbled in a copy of Diophantus' *Arithmetica* and finally proved by Andrew Wiles. For 10 points, identify this French mathematician with a namesake "little" theorem and "Last" theorem.

ANSWER: Pierre de **Fermat**

BONUS: Identify these large lakes, for 10 points each.

[10] Duluth, Minnesota sits on the western shore of what largest freshwater lake in the world, by surface area?

ANSWER: Lake **Superior**

[10] Kenya, Tanzania and Uganda have shorelines on what largest lake in Africa, located in the Great Rift Valley?

ANSWER: Lake **Victoria** or **Ukerewe**

[10] This long and narrow Russian lake is both the world's oldest and deepest lake, containing around 20% of the world's unfrozen surface fresh water.

ANSWER: Lake **Baikal**

2. This man collaborated with his brother on the song "I Got Rhythm" and he included four taxi horns in an orchestral piece inspired by the composer's visit to Europe. An opera by this composer dealt with African-American life on Catfish Row in South Carolina while his most famous orchestral composition was orchestrated by Ferde Grofe and begins with a clarinet glissando. For 10 points, identify this American composer of *An American in Paris*, *Porgy and Bess* and *Rhapsody in Blue*.

ANSWER: George **Gershwin**

BONUS: A major political machine was active in New York City beginning in 1789 and lasting into the 20th century. For 10 points each:

[10] Identify that Democratic political organization founded by William Mooney that helped minorities, mainly Irish, rise up in the political arena.

ANSWER: Tammany **Hall**

[10] Samuel Tilden helped bring down this most famous leader of Tammany Hall, who was arrested in 1877 for stealing over \$30 million dollars from New York City.

ANSWER: William "Boss" **Tweed**

[10] This cartoonist for *Harper's Weekly* was famous for his depictions of Tweed, in addition to drawing the modern depiction of Santa Claus, the Democratic donkey and the Republican elephant.

ANSWER: Thomas **Nast**

3. In one poem by this author, who based Tilbury Town on Gardiner, Maine, the title character "missed the medieval grace of iron clothing," and "kept on drinking" because he was "born too late." In another of this man's poems that was included in *The Children of the Night*, the speaker "went without the meat, and cursed the bread," while the title character, "a gentleman from sole to crown," "one calm summer night/went home and put a bullet through his head." For 10 points, name this author of *Miniver Cheevy* and *Richard Cory*.

ANSWER: Edwin Arlington **Robinson** <JN>

BONUS: For 10 points each, identify the following types of chemical bonds.

[10] Forming between a polar molecule and a certain light, namesake element are these types of bonds that help to explain the unusual characteristics of water.

ANSWER: **Hydrogen** bonds

[10] The sharing of pairs of electrons between atoms is characteristic of this type of bond, often contrasted with ionic bonds.

ANSWER: **covalent** bonds

[10] These are the strongest type of chemical covalent bonds; they are created when atomic orbitals overlap and can be supplemented by pi or delta bonds.

ANSWER: **sigma** bonds

4. This author included “Love and How to Cure It,” and “Queens of France” in his collection *The Long Christmas Dinner and Other Plays in One Act*. This author won a Pulitzer Prize for his work about George and Maggie Antrobus, *The Skin of Our Teeth* and wrote about several people who die on a Peruvian bridge in *The Bridge of San Luis Rey*. His most famous work, featuring George Gibbs and Emily Webb, was set in Grover’s Corners, New Hampshire and is narrated by the Stage Manager. For 10 points, identify this American author of *Our Town*.

ANSWER: Thornton Niven **Wilder**

BONUS: Identify these philosophers from a description, for 10 points each,

[10] This British philosopher and founder of utilitarianism wrote about the greatest happiness for the greatest number in his work *Principals of Morals and Legislation*.

ANSWER: Jeremy **Bentham**

[10] This French philosopher who coined the term “altruism” was the father of positivism and is considered the founder of sociology.

ANSWER: (Isidore) Auguste (Marie Francois Xavier) **Comte**

[10] This American philosopher and influential figure in the development of pragmatism penned the works *Art as Experience* and *Democracy and Education*.

ANSWER: John **Dewey**

5. In one song, this singer states “And in the limelight, I play it off fine. But I can’t handle it when I turn off my nightlight”, while in another she states “If I am honest, I’m just not hooked on your phonics”. Those works, “The Harold Song” and “Grow a Pear” appear on her second album whose title track states “Be too sweet and you’ll be a goner / Yep, I’ll pull a Jeffrey Dahmer”. This artist, whose major break came singing back-up lyrics on Flo Rida’s “Right Round”, partnered with 3Oh3 for the hit “Blah Blah Blah”. For 10 points, identify this pop singer known for the hits “Tik Tok”, “Your Love is My Drug” and the before-mentioned “Cannibal”.

ANSWER: **Ke\$ha**

BONUS: This autobiographical work begins when the three-year old narrator is sent to live in Stamps, Arkansas with her brother Bailey. For 10 points each,

[10] Identify this work which takes its title from Paul Laurence Dunbar’s poem “Sympathy”.

ANSWER: **I Know Why the Caged Bird Sings**

[10] *I Know Why the Caged Bird Sings* was written by this author of *The Heart of a Woman* and *A Song Flung Up to Heaven*.

ANSWER: Maya **Angelou**

[10] Angelou became the first poet since Robert Frost to read a poem at a Presidential inauguration when she read this poem at Bill Clinton’s inauguration in 1993.

ANSWER: **On the Pulse of Morning**

6. This man said “There is no right to strike against the public safety by anyone, anywhere, any time” in a telegram to Samuel Gompers while putting down the Boston Police Strike during his time as Governor of Massachusetts. The first Vice President to attend cabinet meetings, this man succeeded to the Presidency after his predecessor died suddenly while on a speaking tour. This man appointed Harlan Stone to the Supreme Court and his cabinet included Treasury Secretary Andrew Mellon and Vice President Charles Dawes. For 10 points, identify this 30th U.S. President who served from 1923-1928 following the death of Warren G. Harding.

ANSWER: John Calvin **Coolidge**

BONUS: Identify these German composers for 10 points each.

[10] This German-born composer who later moved to Great Britain was known for his *Water Music* and his *Music for the Royal Fireworks*.

ANSWER: George **Handel**

[10] This composer wrote incidental music to *A Midsummer Night's Dream* in addition to composing the *Italian Symphony* and the *Scottish Symphony*.

ANSWER: Felix **Mendelssohn**

[10] This Baroque composer wrote over 40 *Passions* for the churches in Hamburg alone and wrote 6 *Canonical Sonatas*. He is best known for a collection of music to accompany meals - the *Tafelmusik*.

ANSWER: Georg Philipp **Telemann**

7. The Todi, Albula, and Silvretta groups and the Ortler and Adamello ranges make up part of the main chain of this mountain range, whose eastern section has its highest peak at Piz Bernina. Karl Blodig was the first person to climb all the major 4000-meter peaks of this mountain range, which is formed by the collision of the African and the European tectonic plates. With various passes connecting cities of Italy, Switzerland, Austria, France, and others, for 10 points, this is what mountain range in Central Europe with highest peak at Mont Blanc?

ANSWER: the **Alps** or **Alpen** or **Alpi** or **Alpes**

BONUS: This type of rock can be intrusive, extrusive, and hypabyssal, depending on where and how fast the magma cools. For 10 points each:

[10] Identify this type of rock, which includes granite, which is felsic, and basalt, which is mafic.

ANSWER: **igneous** rock

[10] This other kind of rock includes gneiss, slate, marble, and quartzite. They can have foliation within them and can be formed via the contact and regional types of the namesake process.

ANSWER: **metamorphic** rock

[10] This member of the sedimentary rock family is composed largely of minerals calcite and aragonite. They are often formed from skeletons of marine organisms, as at the cliffs of Dover. It was used to build the Pyramids.

ANSWER: **limestone**

8. John Howard, the First Duke of Norfolk was killed in the early days of this battle despite his side having the commanding position on Ambien Hill. One key event in this battle was the desertion of Sir William Stanley, whose attack helped lead to the death of the reigning English monarch, who had lost his horse and was killed in a bog. Marking the end of the Plantagenet Dynasty, for 10 points, identify this 1485 battle which ended the War of the Roses and saw the forces of Henry Tudor defeat and kill Richard III.

ANSWER: Battle of **Bosworth Field**

BONUS: This nation saw the death of over one million people from 1845-1852. For 10 points each,

[10] Identify this European nation which saw mass starvation due to its namesake potato famine.

ANSWER: **Ireland**

[10] This 1916 event in Ireland, set during the week of the namesake holiday, was a rebellion by Irish revolutionaries led by Patrick Pearse and James Connolly against British rule.

ANSWER: **Easter Rising** [accept **Easter Uprising**]

[10] This man fought alongside Pearse during the Easter Rising, and would later be the Director of Intelligence for the Irish Republican Army before his 1922 assassination during the Irish Civil War.

ANSWER: Michael **Collins**

9. In one work by this author, Callimaco attempts to sleep with Lucrezia, the wife of Nicia. In addition to *The Mandrake*, this man wrote a work in three books describing the benefits of forming a republic, *Discourses on Livy*. His most famous work is a political tract originally dedicated to Lorenzo de Medici that contained the line “it is far safer to be feared than loved” when describing the way to obtain and hold political power. For 10 points, identify this Italian philosopher and author of *The Prince*.

ANSWER: Niccolo **Machiavelli**

BONUS: In this novel, Pablo and El Sordo are leaders of guerrilla factions. For 10 points each,

[10] Identify this work set during the Spanish Civil War about Robert Jordan’s love for Maria.

ANSWER: **For Whom the Bell Tolls**

[10] *For Whom the Bell Tolls* is a work by this author of *The Old Man and the Sea* and *A Farewell to Arms*.

ANSWER: Ernest Miller **Hemingway**

[10] A writer on safari dies from an infected wound in this Hemingway short story in which he imagines a plane taking him to the title location.

ANSWER: “The **Snows of Kilimanjaro**”

10. This God was once trapped in a cedar tree, which was used by the King of Byblos to entrap him at his palace. After being locked in a coffin by his brother, this God was chopped into 14 pieces before all but one of those pieces were collected by this God’s wife and Nephtys. Often depicted wearing an Atef crown and carrying a crook and flail, this God was the oldest son of Geb and Nut and brother of Set.. For 10 points, identify this husband of Isis and the father of Horus, the Egyptian god of the dead.

ANSWER: **Osiris**

BONUS: Identify these Roman emperors, for 10 points each.

[10] This last emperor of the Julio-Claudian dynasty is alleged to have “fiddled while Rome burned” during the 64 AD Great Fire of Rome.

ANSWER: **Nero** [accept **Nero Claudius Caesar Augustus Germanicus**]

[10] This man served as Roman Emperor from 117 to 138 AD, and built a namesake fortification across Great Britain in 122.

ANSWER: **Hadrian** [accept **Publius Aelius Trajanus Hadrianus Augustus**]

[10] This man succeeded Nerva as emperor and served from 98 to 117. Known for his public building projects, this man is the namesake of a column in Rome commemorating his victory in the Dacian Wars.

ANSWER: **Trajan** [accept **Marcus Ulpius Nerva Trajanus Augustus**]

11. Integrating Euler's equation along a streamline can be used to derive the equation of this principle, which explains the Magnus effect. It can also be used to explain the Venturi effect, and it obeys the law of conservation of energy along a streamline. First published in its namesake's *Hydrodynamica*, it states that the sum of the kinetic energy density, gravitational potential energy, and pressure of a fluid is constant. For 10 points, identify this principle of fluid mechanics used to explain the lift on airplanes.

ANSWER: Bernoulli Principle or Bernoulli Equation

BONUS: For 10 points each, identify these movies featuring lovable fat guy Zach Galifianakis.

[10] Galifianakis starred as Alan Garner, the brother of the groom, in what 2009 comedy also starring Ed Helms and Bradley Cooper.

ANSWER: The Hangover

[10] Galifianakis played Ethan Trombley opposite Robert Downey Jr. in this 2010 comedy about a cross-country road trip.

ANSWER: Due Date

[10] One of Galifianakis's first films was this 2001 comedy starring Chris Kattan about a local veterinarian's attempts to infiltrate the mob.

ANSWER: Corky Romano

12. This author's relationship with Lord Alfred Douglas led to his imprisonment on sodomy laws, during which time he penned *De Profundis*. After his release from prison, he wrote a poem containing the line "Yet each man kills the thing he loves", *The Ballad of Reading Gaol*. This author of *An Ideal Husband* and *Lady Windemere's Fan* wrote one play in which Gwendolyn Fairfax loves the title character in part due to his name and in his only novel, this author describes the title character's destruction of a painting done by Basil Hallward. For 10 points, identify this Irish writer of *The Importance of Being Earnest* and *The Picture of Dorian Gray*.

ANSWER: Oscar (Fingal O'Flahertie Wills) Wilde

BONUS: A new religious movement developed in Jamaica during the 1930s. For 10 points each,

[10] Identify that monotheistic religion known for its use of cannabis and its view that Africa was the original birthplace of man.

ANSWER: Rastafarianism

[10] Many adherents of Rastafarianism worship this former Emperor of Ethiopia as the reincarnation of Christ.

ANSWER: Haile Selassie

[10] Rastafarians also revere this founder of the African Communities League and Black Star Line as a prophet, often comparing him to a reincarnation of John the Baptist.

ANSWER: Marcus Garvey

13. Pablo Picasso and Edvard Munch both created their own depictions of this work, which contains a box on its bottom right containing the name of the artist. The central figure in this work, who wears a white sheet as a turban, holds a note in his left hand which reads "I am just too unhappy to deserve your kindness" and a quill in his right hand which can be seen at the base of a bathtub. For 10 points, identify this painting which depicts a Frenchman stabbed to death in a bathtub by Charlotte Corday, a work by Jacques-Louis David.

ANSWER: *The Death of Marat*

BONUS: This work describes the journey of D'Artagnon to Paris with the title characters. For 10 points each,

[10] Identify this 1844 historical novel featuring Athos, Porthos, and Aramis.

ANSWER: *The Three Musketeers*

[10] *The Three Musketeers* was written by this author of *Twenty Years After* and *The Vicomte of Bragelonne*.

ANSWER: Alexandre Dumas, pere

[10] Edmond Dantes escapes from the Chateau D'If in this Dumas work about Abbe Faria's treasure on the title location.

ANSWER: *The Count of Monte Cristo*

14. One character in this novel, Adele Ratignolle, urges the protagonist to care for her children above all else. Another character in this novel, the piano playing Mademoiselle Reitz helps the protagonist sort of her feelings for another character, who has left Grand Isle for Mexico. Despite being married to her husband Leonce, the protagonist of this novel develops romantic feelings for Alcee Arobin and Robert Lebrun before drowning herself by walking into the Gulf of Mexico. For 10 points, identify this novel about Edna Pontellier by Kate Chopin.

ANSWER: *The Awakening*

BONUS: For 10 points each, answer these questions about the cells that transmit electrochemical signals in the nervous system.

[10] Name for those cells, which pass on signals via synapses.

ANSWER: neurons

[10] The branched projections of neurons that act in receiving the electrochemical stimulations are known as this.

ANSWER: dendrites

[10] Named after a German physiologist, these glial cells are responsible for myelinating axons in the peripheral nervous system.

ANSWER: Schwann cells or neurolemmocytes

15. This ruler fought the War of Spanish Succession in an attempt to place his grandson Phillip V on the throne of Spain. William III of Orange and Holy Roman Emperor Leopold I created the League of Augsburg to oppose this man, who revoked the rights given to Protestants in his country with his Edict of Fontainebleau. Advised by Jean-Baptiste Colbert and Cardinal Mazarin, this ruler moved his court from the Louvre to the Palace of Versailles. For 10 points, identify this long-ruling King of France known as the "Sun King".

ANSWER: Louis XIV

BONUS: A clock is melting over the edge of a brown platform in this work. For 10 points each,

[10] Identify this painting which also contains two other melting clocks, one of which is hanging over a tree limb.

ANSWER: *The Persistence of Memory*

[10] This artist painted *The Persistence of Memory* in addition to *The Hallucinogenic Toreador* and *Swans Reflecting Elephants*.

ANSWER: Salvador Dali i Domenech

[10] Dali was a proponent of surrealism, as was this French artist who depicted a pipe with the line below it reading "This is not a pipe" in his work *The Treachery of Images*.

ANSWER: Rene (Francois Ghislain) Magritte

16. The secondary type of this tissue is produced on the adaxial side of the vascular cambium, whereas the primary type of this tissue is located closest to the pith. Tracheids and vessel elements make up this tissue, and one mechanism for its function involves the evaporation of water at the mesophyll cells in leaves and the resulting pressure at roots called transpirational pull, which allows water and minerals to travel through the plant. For 10 points, identify this type of vascular tissue in plants that is complemented by the phloem.

ANSWER: xylem

BONUS: Answer the following questions about an African empire, for 10 points each.

[10] Sundiata Kieta founded this west African empire which used gold dust as a currency and was centered at Timbuktu.

ANSWER: Mali Empire

[10] This 10th emperor of the Mali Empire was known for his extravagant pilgrimage to Egypt which involved over 60,000 men.

ANSWER: Mansa Musa

[10] The Mali Empire was bisected by this longest river in West Africa, which is the namesake of a country with capital at Niamey.

ANSWER: Niger River

17. One famous depiction of this event was captured by John Filo, and most prominently featured Mary Ann Vecchio and Jeffrey Miller. Spurred in part by Governor James Rhodes describing participants of a protest as “un-American”, this event saw 67 shots fired, which killed 4 people and injured 9 others, some of whom had been protesting the U.S. invasion of Cambodia. For 10 points, identify this May 4, 1970 incident in which the Ohio National Guard fired into a crowd of unarmed protesters at an Ohio university.

ANSWER: Kent State massacre

BONUS: This system was created in 1913 as a result of the Panic of 1907. For 10 points each,

[10] Identify this central banking system in the United States whose role today is to regulate banking institutions.

ANSWER: Federal Reserve System

[10] This former economics professor at Princeton University is the current chairman of the Federal Reserve.

ANSWER: Ben Shalom Bernanke

[10] Only William McChesney Martin served longer as Federal Reserve Chairman than this man, who was appointed by Ronald Reagan in 1987 and served in that position until 2006.

ANSWER: Alan Greenspan

18. The Zeisel test can be used to detect them, and the compound THF is a very polar example of one. The “crown” varieties are cyclic and can be used as solvents in Grignard reagents due to their low reactivity. These compounds can be produced by the Williamson synthesis or by the dehydration of alcohols. For 10 points, identify these chemical compounds, characterized by two alkyl groups single bonded to an oxygen, whose diethyl version used to be used as an anesthetic.

ANSWER: ethers [accept esters before “THF”]

BONUS: Identify these Shakespearean works from a brief description, for 10 points each.

[10] Goneril, Regan attempt to demonstrate who loves their father the most, while their younger sister Cordelia is disinherited in this Shakespearean tragedy.

ANSWER: **King Lear**

[10] The Three witches declare that the title character will be “Thane of Glamis”, “Thane of Cawdor” and “king thereafter” in this Shakespearean tragedy which sees all of these prophecies fulfilled.

ANSWER: **Macbeth**

[10] Antipholus of Syracuse and Antipholus of Ephesus are twin brothers separated at birth in this early Shakespeare play which is his shortest work.

ANSWER: **The Comedy of Errors**

19. He attacked the French utopian socialist Charles Fourier in *Socialism: Utopian and Scientific*, and he spoke out against the institution of marriage in *The Origin of the Family, Private Property, and the State*. This co-author of *The Holy Family* and critic of Eugene Duhring wrote *The Condition of the Working Class in England* in 1844 after seeing the horrors of the textile industry. For 10 points, identify this collaborator with Karl Marx on a work that mentions “economic original sin”, *The Communist Manifesto*.

ANSWER: Friedrich **Engels**

BONUS: For 10 points each, identify the following terms from mechanics.

[10] This is the rotational analogue of force, and precession induced by this is known as “gyroscopic.”

ANSWER: **torque**

[10] Torque divided by angular acceleration will give you this quantity that is the rotational analogue of mass and is often represented by a capital I.

ANSWER: **moment of inertia**

[10] The moment of inertia times angular velocity gives you this quantity often represented by a capital L.

ANSWER: **angular momentum** [do not prompt on momentum]

20. The birth of this figure is foretold by an angel in the city of Zorah to his father Manoah, who learned that this figure would be a Nazarite from birth. On the way to his wedding, this man discovered bees nesting the carcass of a lion, and ate the honey left in that carcass. This man famously killed a thousand men with the jawbone of an ass before being captured by the Philistines. For 10 points, identify this figure from the Book of Judges who had his hair cut by Delilah.

ANSWER: **Samson**

BONUS: Identify these notable sculptures or sculptors, for 10 points each.

[10] This Romanian sculptor was an apprentice of Auguste Rodin, and was known for his *The Endless Column* and *Bird in Space*.

ANSWER: Constantin **Brancusi**

[10] Gutzon Borglum designed the Confederate depiction of Stonewall Jackson, Robert E. Lee and Jefferson Davis in Stone Mountain, Georgia in addition to this other massive rock sculpture near Keystone, South Dakota.

ANSWER: **Mount Rushmore**

[10] The Piccirilli Brothers carved this man’s famous design of Abraham Lincoln which is on display at the Lincoln Memorial in Washington D.C.

ANSWER: Daniel Chester **French**

Tiebreaker Questions

TB1. Figures included in this work include *Paolo and Francesca*, which is shown on the left door pane, and *Meditation*, which appears on the right side of the Tympanum. Standing over six feet high, this work depicts scenes from Dante's *Inferno* and currently stands at its sculptor's namesake museum in Paris. For 10 points, identify this sculpture which includes *The Kiss* and *The Thinker*, a large sculpture by Auguste Rodin.

ANSWER: The **Gates of Hell**

TB2. One story in this collection tells of Arcite and Palamon, who both love Emily before being forced to duel over her by Theseus. Another story tells of a knight who is forced to find out what women really want as the punishment for raping a woman in a field. Beginning at the Tabard Inn at Southwark, the stories collected in this work are told by a group of pilgrims on a voyage to the shrine of Thomas a Becket. For 10 points, identify this magnum opus of Geoffrey Chaucer.

ANSWER: *The **Canterbury Tales***