## 2002 Martin Luther King Jr. Memorial Tournament University of Michigan/Duke University Tossups by Pittsburgh B and lowa State

1. In section 56, the poet describes nature as "red in tooth and claw," and talks about species becoming extinct. The probable turning point from despair towards acceptance is 78 , although cases can be made for 57 or 85 . The action is based around three Christmases, three returns of spring, and two anniversaries of the friend's death. For 10 points -- name this poem, composed between 1833 and 1850, about the death of Arthur Henry Hallam, written by Tennyson. Answer: In Memoriam A. H. H.
2. His college career at Washington was notable, but not necessarily any more so than Warrick Dunn's and Antowain Smith's, both running backs drafted before him in 1997. The benefit of replacing Ki-Jana Carter launched him into an immediate starting role, and he has since become a top-notch rusher, and holds the NFL single game rushing yardage record. For 10 points -- name this record-holding running back for the Cincinnati Bengals.
Answer: Corey Dillon

## SHIHUANGDI: she-hwong-dee

3. He centralized the economy and the defenses, constructed roads and canals, and abolished the feudal system, dividing China into 36 provinces instead. He had a wall built to protect China from the north, but this was not the Great Wall. In 221 BC, he became the first emperor of a unified China. For 10 points -- name this founder of the Qin dynasty, famous for his burial mound near Xi'an, which contains an army of over 6,000 life-size terra cotta humans and horses.
Answer: Qin Shihuangdi
Accept: Shih-huang-ti
4. The emission of this occurs at the recombination center in indirect bandgap semiconductors, since the momentum of a photon is negligible compared to that of an electron. The result is heating of the lattice. The energy of this is defined as $h$-bar times omega, and the momentum as h-bar time K. For 10 points -- name this quantum of lattice vibration.
Answer: Phonon
5. The main focus of the interior is Bernardo Daddi's miracle-working Madonna and Child, housed in the Andrea Orcagna-designed tabernacle. The only side altar is dedicated to St. Anne, one of the patrons of the city. The outside is decorated with 14 statues, donated from Florence's main guilds; among them are Ghiberti's bronze St. Matthew, and Donatello's marble St. George. For 10 points -- name this church, whose unusual structure is due to the fact that it was originally a Florentine grain market.
Answer: Or San Michele
6. The narrator would like to respect the title characters, but doing so would be disagreeing with virtually all scholars. Three of those characters appear and each, while establishing foundations, streets, and such facilities, gives the narrator a comparison of important contemporary women and women of antiquity. Afterward the title location is populated with these great women, and the narrator, considered the first Frenchwoman to support herself by writing, warns women about men. For 10 points -- name this 1405 feminist innovation written by Christine de Pizan.
Answer: La Livre de la Cité des Dames
Answer: The Book of the City of Women
7. Its soundtrack was a best-seller in 1974, and made a hit song of a tune over 50 years old. The title refers to the film's finale, a double-cross of the character played by Robert Shaw. Notably, it reunited the stars and director of Butch Cassidy and the Sundance Kid and combined them with a twist-filled plot. For 10 points -- name this film which brought fame to Scott Joplin's tune "The Entertainer," starred Robert Redford and Paul Newman, and won the Academy Award for Best Picture of 1973.
Answer: The Sting
8. It describes the Kula Ring exchange in which the peoples of an island group make dangerous voyages in canoes to exchange valuable gifts. The information for the work was gathered from the author's 1915-1918 stay in the Trobriand Islands, which pioneered the anthropological idea of fieldwork and participant observation. For 10 points -- name this work by Branislaw Malinowski whose title suggests Jason and his crew being placed in the world's largest ocean.
Answer: Argonauts of the Western Pacific
9. Today it is the largest railroad company in the country, since acquiring a major competitor in 1996. It was nearly driven into bankruptcy by the scandal surrounding the contracting company associated with it, Credit Mobilier. In 1898 it was bought out of receivership by E H. Harriman, who used it as the basis of a massive holding company. For 10 points -- name this line that in 1862 started working its way west from Omaha to join the Central Pacific at Promontory Point, Utah.
Answer: Union Pacific Rail Corporation
10. This equation is a consequence of the work/energy theorem and illustrates steady but irrotational flow of ideal fluids with a set density. The equation relates the pressure, velocity, and elevation of any two points in the ideal fluid. For 10 points -- what is this formula, which sets forth the reason that when the flow is horizontal, higher fluid speeds are associated with lower fluid pressures?
Answer: Bernoulli's Equation
11. Its lower course drains the Khorat Plateau and the Khone Falls mark its entry into one of the six countries that it flows through or borders. It rises in the T'Ang Ku-La mountains where its main stream is called the Lan-Ts'ang, and one lower branch is the Bassac River. Tonle Sap is connected by canal to -- for 10 points -- what river flowing from Tibet and Burma before going near Vientiane and through Phnom Penh on its way to a delta in Vietnam.
Answer: Mekong
12. His apparently lost "Gmunden-Gastein" symphony may have been turned into his Grand Duo for piano, or into the C major symphony that Robert Schumann found among some manuscripts and got Mendelssohn to premiere in 1839. That work is known today as the "Great" symphony, while he gave the name "Tragic" to his fourth composed in 1816. For 10 points -- name this composer of more than 600 songs, no concertos and eight and a half numbered symphonies. Answer: Franz Schubert
13. Duns Scotus was an early exponent of this doctrine, but it took several centuries before the bull Ineffabilis Deus was put out by Pius IX in a rare use of papal infallibility, to declare that Saint Anne's pregnancy had a remarkable similarity to that of her more famous daughter. December 8th is the feast day that goes with -- for 10 points -- what Roman Catholic doctrine proclaiming that the Virgin Mary was more perfectly redeemed from Original Sin than are the rest of us? Answer: Immaculate Conception
14. Its hero, a publisher, was the cousin of the Lone Ranger, through a contrived relation designed to bring a spin-off radio audience. His assistant, Kato, was not only his chauffeur but, in the television series, a martial arts master played by Bruce Lee. Though actually a crime-fighter, he infiltrated the criminal underworld posing as a master criminal. For 10 points -- name this radio and television series, the latter of which featured Al Hirt's trumpet revamping "Flight of the Bumblebee."
Answer: The Green Hornet
15. His main usefulness as British war minister was to put his face on recruiting posters, and he was no great loss when his ship was sunk by a mine in 1916. As commander in South Africa, he had tried to remove civilian support for the Boer resistance by placing Afrikaners in concentration camps. For 10 points -- name this English general who in 1898 avenged the death of General Gordon by capturing Khartoum.
Answer: Lord Horatio Herbert Kitchener, 1st Earl of Khartoum
16. In Treatise of Nature and Grace, he tried to reconcile the presence of evil with God's omniscience and goodness. His principle work on epistemology dates to 1675. He believed that one does not perceive external objects but rather ideas of them, also asserting that external objects are viewed only by seeing their images in God's mind. However, he is most famous for this view that God is the basis of all causation, not whatever we happen to percieve as causing events. For 10 points -- name this French Cartesian and exponent of Occasionalism.
Answer: Nicholas Malebranche
17. In 1850, Rudolf Wolf wrote a lenghtly paper about this problem, proposing that it might be used as a primitive Monte Carlo estimator. Because the probability involved in the solution to this problem is calculated as a function of the cosine of an angle, it is an inverse function of pi and therefore an experimental estimation of pi can be made. For 10 points -- identify this method of estimating pi by dropping a needle onto a set of parallel lines in the ground.
Answer: Buffon's Needle Problem
18. Known as BLU-82, it combines a watery mixture of ammonium nitrate and aluminum with air. First used during the Vietnam War for quick clearing of jungle landing zones, it was also used during the Persian Gulf War and ones that were recently pulled out of museums are being used today. For 10 points -- what weapon is this that can incinerate everything within 600 yards, which has been dropped several times on Afghanistan?
Answer: Daisy Cutter bomb
19. Four friends embark on a hunting trip in the woods in northern Maine only to find themselves in the middle of an alien invasion. Mr. Grey hijacks Jonsey's body attempting to spread the infectious virus through contaminating water, but Henry and Duddits, who has both Down Syndrome and telepathic abilities pursue him in -- for 10 points -- what 2001 Stephen King book named for the spiderweb-like object that binds them together?

## Answer: Dreamcatcher

20. During the Asian financial crisis there was a hit song in Thailand about how the baht was doing this. As a noun it describes money that appears on the books of both the payer and the payee of a check, or to indicate that a check has been written from an account with insufficient funds but is expected to soon contain enough money. For 10 points -- what term is also used to describe an exchange rate that is being determined by supply and demand without rigid backing or intervention?
Answer: floating
21. The woman in the foreground is wearing a pink dress, and appears much younger than she actually is. She is crawling along a field that is made with the characteristic brush strokes of the artist. She is crawling back to her farmhouse, which is in the upper right hand corner. For 10 points -- what is this painting by Andrew Wyeth, depicting a blind woman attempting to return home.
Answer: Christina's World
22. He may originally have been a derivative of an ancient sun god or his brother Gawain, and is one of the latest editions to the Arthurian saga, appearing first in the Vulgate Cycle of the 13th century. While he himself is often portrayed as an idealized youth, his father thought during his conception that he was having an adulterous relationship with the queen rather than his own wife, Elaine. For 10 points -- name this occupant of the Siege Perilous, a virgin knight of the Round Table, the son of Lancelot, and finder of the Holy Grail.

## Answer: Galahad

23. Her first work in American television was as an associate producer for ABC World News Tonight, covering the 1991 Bush/Gorbachev and 1993 Clinton/Yeltsin summits. A graduate of Queen's University, her career in local television had stops in Edmonton, Calgary, and Dallas before she became a national host on "HomePage," and "NewsFront," the latter of which she left for good on September 11. For 10 points -- identify this anchor of "A Region in Conflict" on MSNBC.
Answer: Ashleigh Banfield
24. After becoming prime minister in 1932, he started a trade war with his country's former colonial power over colonial-era Land Acts and did not support that country during World War II. In addition to a term as president of the League of Nations, he served as his country's president until 1973, having first become president of its independence movement in 1918. For 10 points -name this American-born, half-Spanish former math teacher who ran Ireland forever. Answer: Eamon de Valera
25. They can be created by shearing, peptization or cooling of vaporized metal in water. First named by Thomas Graham, he classified them as substances that could not be diffused by dialysis. Electrostatic repulsion stabilizes them although their dispersed particles are electrically neutral. These particles can be caused to aggregate by heating or by adding electrolytes, thus coagulating -- for 10 points -- what type of substance, examples of which include aerosols, emulsions, and foams, defined as a suspension of submicroscopic particles larger than molecules?
Answer: colloid
26. His early works include The Conquest of Canaan and Monsieur Beaucaire. His tales of fading aristocracy and the loss of fortunes mirrors his own family's experience. Although he spent part of his life in Kennebunkport, Maine, he will always be associated with Indiana. For 10 points -name this author of Alice Adams and The Magnificent Ambersons.
Answer: Newton Booth Tarkington

## 2002 Martin Luther King Jr. Memorial Tournament University of Michigan/Duke University Bonuses by Pittsburgh B and lowa State

1. Answer these questions about 17th century Dutch genre painters for 10 points each:
A. (10) He specialized in pictures of disorderly households, such as In Luxury, Look Out, Celebrating the Birth, and The Young Ones Chirrup as the Old Ones Sing.
Answer: Jan Steen
B. (10) Among her best known works are The Proposition, and Young Flute Player, but she virtually stopped painting after her 1636 marriage to Jan Miense Molenaer.
Answer: Judith Leyster
C. (10) This Delft native often used his paintings to pay debts, and his few surviving works include Christ at the House of Mary and Martha and a view of his home city.
Answer: Johannes (Jan) Vermeer
2. Name these things about W.E.B. Du Bois, for 10 points each:
A. (10) His home town, where by age 15 he was writing as a correspondent for the New York Globe.
Answer: Great Barrington, Mass.
B. (10) The black college where he got an undergraduate degree before going on the Harvard.

Answer: Fisk University
C. (10) The NAACP magazine that he started in 1910 and edited for 24 years after that.

Answer: The Crisis
3. Name the characters from the Ramayana for the stated number of points.
A. (5) This daughter of Janaka is married to Rama, who wages war to regain her.

Answer: Sita
B. (10) This leader of the Rakshasas captures Sita and brings her back to his island city of Lanka.
Answer: Ravana
C. (5) This monkey god is indispensable to Rama's cause. After his king, Sugriva, has made an alliance with Rama, he sneaks into Lanka and gives Sita Rama's signet ring.
Answer: Hanuman
D. (10) This brother of Rama went into exile with him, sharing the misfortunes of him and Sita.

Later he helps Rama defeat Ravana, most notably slaying Indrajit..
Answer: Lakshman(a)

## CIOMPI: CHOM-pee

4. Name these European medieval social rebellions for ten points each:
A. (10) Minor guildsmen and those in unorganized trade overthrew the Florentine government in this 1378 uprising, which takes its name from the most radical rebels, the wool-carders.
Answer: Ciompi Revolt
B. (10) Peasants in northern France rebelled in 1358, and were quickly dispersed after their leader, Guillaume Karle, was beheaded by Charles II of Navarre.
Answer: Jacquerie
C. (10) This 1381 English rebellion led by Wat Tyler came about in response to the corruption of the regency government of Richard II following Edward III's death.
Answer: Peasant's Revolt
5. Identify these terms having to do with stems for 10 points each.
A. (10) A leaf positioned just below a flower or part of a flower, often reduced to small size and sometimes used for protection, as in magnolia.
Answer: bract
B. (10) This is the name given to the stem of an individual leaf.

Answer: petiole
C. (10) This is the adjective describing parts of a plant which develop nonstandardly from other parts, for example roots growing from a stem or vice versa.
Answer: adventitious
6. Identify the Sartre plays from characters for 10 points each
A. (10) Garcin, Estelle, and Inez

Answer: Huis Clos
English: No Exit
B. (10) Hugo, Olga, Jessica, and Hoederer

Answer: Les Mains Sales
English: Dirty Hands
C. (10) Lizzie, Fred, The Negro, and The Senator

Answer: La Putain Respectueuse
English: The Respectful Prostitute
7. Several major budget films were delayed from original release dates because of the September 11 attacks. Identify three of them for 10 points each.
A. (10) This film, an Arnold Schwarzenegger action pic, had too much terrorist action to justify its fall release and was pushed back to 2002.
Answer: Collateral Damage
B. (10) This film, starring Tim Allen, Rene Russo, Jason Lee, Janeane Garofalo, and Stanley Tucci, concerns several Miami residents and a bomb in a suitcase.
Answer: Big Trouble
C. (10) This John Woo film starring Nicolas Cage, about Navajo Indians in World War Two, was delayed until summer 2002.
Answer: Wind Talkers

## CATALHUYUK: chah-tahl-HOO-yuk

8. Name the famous archaeological sites for 10 points each
A. (10) This mound site in Western Turkey that Heinrich Schliemann correctly believed to be the site of ancient Troy.
Answer: Hisarlik
B. (10) This 7th-century site in East Anglia contained a ship burial with Byzantine artifacts not previously thought to have ever made it to Britain.
Answer: Sutton Hoo
C. (10) In the mid-60s James Mellaart found evidence of settlement going all the way back to 6700 BC at this site in Central Turkey.

## Answer: Catalhuyuk

9. Identify the following Canadian Prime Ministers for ten points apiece.
A. (10) This Conservative was Prime Minister during World War I and secured Canada an independent place in the League of Nations.
Answers: Sir Robert Laird Borden
B. (10) This séance-holding three-time Liberal PM led Canada during World War II and attended the United Nations Conference in San Francisco and the Paris Peace Conference.
Answer: William Lyon Mackenzie King
Do not accept: William Lyon Mackenzie
C. (10) This Liberal PM from 1963-68 won a Nobel Prize for his efforts that resulted in NATO and his plan to establish a U. N. emergency force in the Suez Canal region.
Answer: Lester Bowles Pearson
10. Answer the following about Byzantine art for 10 points each.
A. (10) This great Byzantine Church was commissioned by Justinian I and built by Anthemius of Tralles and Isidorus of Miletus from 532-537.
Answer: Hagia Sophia
Accept: San Sofia
Accept: Church of the Holy Wisdom
B. (10) This 12th-artist painted a famous but now lost image of Christ Pantocrator on the dome of the Church of the Holy Apostles.
Answer: Eulalios
C. (10) This church in Venice is based on the Church of the Holy Apostles in Constantinople, and contains four famous bronze horses brought back from that city in 1204.
Answer: Basilica San Marco
English: St Mark's Basilica or
11. Answer these assorted physics questions for ten points apiece.
A. (10) Unpolarized light with intensity 10 (I naught) passes through a polarizing sheet. What is the intensity of the resultant polarized light?
Answer: one-half 10
B. (10) Gauss's law states the flux in electric field through a closed surface is directly proportional to the enclosed charge. What is the constant that relates the two quantities, with units of farads per meter?
Answer: permittivity constant
C. (10) Name the change in linear momentum defined as the integral of force over time.

Answer: impulse
12. Name these characters from Virgil's Aeneid, for the stated number of points:
A. (5) The Carthaginian queen that Aeneas dumps, after which she kills herself.

Answer: Dido
B. (5) Aeneas' father, who tells him all about what Rome will eventually become.

## Answer: Anchises

C. (10) Aeneas' helmsman, who is pushed into the ocean by the god of sleep and whom Aeneas then needs to bury.
Answer: Palinurus
D. (10) The Arcadian king whom Aeneas finds living in a rustic settlement on the future site of Rome.
Answer: Evander

## RAKOCZY: rah-KOH-chee

13. Identify these work by Franz Liszt for 10 points each.
A. (10) This symphony has three parts, but the third consists only of a Magnificat because he believed man could not write music depicting Paradise.
Answer: Dante Symphony
B. (10) These 19 pieces for piano, bearing titles like "Rakoczy March" and "Carnival in Pest", were based not on national folk music but on urban popular music.
Answer: Hungarian Rhapsodies
C. (10) This 1854 symphonic poem is about a Cossack chieftain from the time of Peter the Great, also the subject of works by Victor Hugo and Lord Byron.
Answer: Mazeppa
14. Answer the following about Ron Howard for the stated number of points.
A. (10) Ron Howard's original steady acting job was as what son of Andy on the Andy Griffith Show?
Answer: Opie
B. (10) Ron acted in George Lucas' "American Graffiti" which spawned a show in the 1970's that starred Ron Howard as what awkward teen?
Answer: Richie Cunningham
C. (5/5) In an infamous episode of Happy Days, Richie and Fonzie teach an alien about women. Name both the actor and the alien that he eventually portrayed in a popular spin-off.
Answer: Mork and Robin Williams
15. Identify the feature of the skull, for 10 points each.
A. (10) These bumps are where the atlas and the skull articulate; rotation along them allows nodding.
Answer: occipital condyles
B. (10) This hole in the back of the skull allows the spinal cord to exit the skull.

Answer: foramen magnum
C. (10) These bone structures found in the nose support membranes which warm the air as it enters the nasal passage.
Answer: turbinates
16. Name these things that led to the start of the Second Punic War for 10 points each:
A. (10) According to Polybius, the Romans and Carthaginians made a treaty in 226 in which it was agreed that the Carthaginian armies should not cross this Spanish river.
Answer: Ebro
Accept: Iberus
B. (10) The treaty itself was made with this Barcid, son-in-law of Hamilcar, who founded New Carthage in Spain:
Answer: Hasdrubal
C. (10) It can be argued the Romans violated the treaty when they interfered in Hannibal's siege of this city, which appealed to Rome for help against Carthage
Answer: Saguntum
17. Name the horror short story from clues for 10 points each
A. (10) Shirley Jackson's tale about a New England town stoning to death the winner of this contest
Answer: The Lottery
B. (10) Edgar Allen Poe wrote this story about an artist who transfers his wife's beauty as well as her life onto the canvas
Answer: The Oval Portrait
C. (10) Charlotte Perkins Gilman wrote this feminist work about a woman who is kept from doing anything so she can recover from a nervous condition, which actually causes her insanity Answer: The Yellow Wallpaper
18. Answer the following about the Beatles' solo careers for 10 points each.
A. (10) George Harrison's first post-Beatles album, it was an epic triple album that featured hits like "What Is Life," "My Sweet Lord," and the title track.
Answer: All Things Must Pass
B. (10) All we are saying is that this song was recorded by John Lennon, Yoko Ono, Tommy Smothers, Allen Ginsberg, Bob Dylan, Derek Taylor, and others not mentioned.
Answer: Give Peace a Chance
C. (10) One of the biggest hits Wings would score on the charts was this theme to the eighth James Bond film, the first starring Roger Moore.
Answer: Live and Let Die
19. Given a city on the Texas side of the Rio Grande, name the Mexican city on the other side, for 10 points each:
A. (10) El Paso

Answer: Cuidad Juarez
B. (10) Brownsville

Answer: Matamoros
C. (10) McAllen

Answer: Reynosa
20. Identify some people associated your friend and mine, Prometheus, for 10 points each:
A. (10) His dumb brother, who accepted Zeus' gift of a beautiful woman.

Answer: Epimetheus
B. (10) That unfortunately curious woman whose luggage caused no end of problems.

Answer: Pandora
C. (10) In Aeschylus' play, Prometheus talks to this consort of Zeus and victim of an unfortunate animal metamorphosis.
Answer: Io
21. Name the song for 10 points each.
A. (10) Public Enemy's 1991 tune threatening the governor of a state that failed to honor Martin Luther King Jr's birthday as a holiday.
Answer: By the Time I Get to Arizona
B. (10) Soundgarden's college radio hit with the phrase "Looking California, feeling Minnesota" Answer: Outshined
C. (10) Glen Campbell's 1967 hit, written by Jimmy Webb and containing the lines "She'll laugh at the part where it says I'm leavin', 'cause l've left that girl so many times before."
Answer: By the Time I Get to Phoenix
22. Italian artists from works, ten points apiece.
A. (10) The Rape of Prosperine, The Fountain of the Four Rivers

Answer: Gianlorenzo Bernini
B. (10)The Arena chapel frescoes, Life of St. Francis, Ognissanti Madonna

Answer: Giotto di Bondone
C. (10) The Marriage of Alexander and Roxane, a fresco in the Villa Farnesina in Rome

Answer: II Sodoma
Accept: Giovanni Bazzi
23. Given a prime minister or chancellor, name his European country FFPE and a bonus 5 for all correct.
A. (5) Bertie Ahern

Answer: Ireland
Accept: Eire
B. (5) King Simeon II Saxe-Coburg-Gotha

Answer: Bulgaria
C. (5) Janez Drnovsek

Answer: Slovenia
D. (5) Guy Verhofstadt

Answer: Belgium
E. (5) Wolfgang Schuessel

Answer: Austria
24. American works of literature, from descriptions, ten points apiece.
A. (10) This book by Sandra Cisneros covers a year in the life of Esperanza, a young Hispanic girl in Chicago who dreams of becoming a poet.
Answer: The House on Mango Street
Accept: La Casa en Mango Street
B. (10) It is an account of Norwegian settlers on the Great Plains written by O. E. Rolvaag. The wife goes crazy and the husband, Per Hansa, dies in a snowstorm.

## Answer: Giants in the Earth

C. (10) Amy Tan's third book, it deals with the relationship between Olivia and her surrogate mother Kwan, and takes you back in time to the Manchu invasion.
Answer: The Hundred Secret Senses
25. Identify these pieces of legislation for 10 points each.
A. (10) This act created the Federal Reserve System. It was named after a representative from Virginia and a Senator from Oklahoma.
Answer: Owen-Glass Act
B. (10) This 1947 act consists of a series of amendments to the National Labor Relations Act of 1935. The closed shop was outlawed and union officers were required to sign loyalty oaths.

Answer: Taft-Hartley Act
Accept: Labor-Management Relations Act
C. (10) This act was passed in 1913 after the ratification of the 16 th Amendment. It implemented a 1 percent tax on incomes over $\$ 3,000$ and a graduated surtax on incomes above $\$ 20,000$.
Answer: Underwood-Simmons Tariff
26. To further specify geological time, the Cenozoic era was broken into epochs along with periods. Identify these epochs, from description, for 10 points each.
A. (10) This is the first and shortest epoch of the Tertiary period, lasting from 65 million years ago to 55 million years ago. It was marked by the final dismemberment of Pangaea and the rise of mammalian dominance.
Answer: Paleocene epoch
B. (10) This epoch, the third epoch of the Tertiary period, lasted from 38 million to 24 million years ago. The Baluchiterium-the largest land mammal ever-existed in central Asia and the creodonts, which had evolved during the Paleocene, diverged into cats and dogs. The first species of great apes also emerged.
Answer: Oligocene epoch
C. (10) The epoch was the first epoch of the Quaternary period, and it lasted from 1.6 million years ago until 10,000 years ago. Sheets of ice covered much of the earth, and the first humans appeared.
Answer: Pleistocene epoch

