The Vendidad, Yashts and Yasda comprise part of its main sacred text, a compilation known as the Avesta. The major divinities include the spirit of destruction Angra Mainyu and Mithra, keeper of covenants. Well-attested by the Achaemenid period, many of its sacred texts were said to be lost forever when Alexander the Great sacked Persepolis, and declined in influence with the Muslim conquest of Persia. The Faravahar, a winged disc, and fire temples are associated with, for ten points, what religion of Ahura Mazda and the prophet Zarathustra?

ANSWER: **Zoroastrianism** (also accept ***Zartoshti***, or **Mazdayasna** or **Mazdaism** before Ahura Mazda)

He attempted to broker peace between Israel and the PLO during Six-Day War, being the only world leader to have open relations with both. Something of a renegade in international affairs, he also maintained a cordial relationship with Mobutu Sese Seko in Zaire and hosted a visit by President Richard Nixon in 1969 while domestically, he used the ubiquitous Securitate secret police to spy on the citizenry. His 1966 Decree 770 mandated monthly pregnancy checks for all women of reproductive age and outlawed abortion. For ten points, name this man who served from 1965-1989 as General Secretary of the Communist Party of Romania.

ANSWER: Nicolae **Ceausescu**

In 1896 this man wrote that "the temperature of the Earth's surface … is conditioned by the properties of the atmosphere surrounding it," quantifying how carbon dioxide might lead to a greenhouse effect. In his doctoral dissertation he explored why, though neither salt nor water will conduct electricity on their own, a solution thereof will. He introduced the idea of activation energy in his namesake equation, which describes the effect of temperature on the rate of a chemical reaction, while his namesake base is one which increases the concentration of hydroxide ions in a solution. For ten points, name this Swede who received the 1903 Nobel Prize for Chemistry.

ANSWER: Svante **Arrhenius**

He was born in 1977 in Kitchener, Ontario, as the son of a lawyer. He worked for Pivot Legal Society from 2003 to 2008 before becoming the director of British Columbia Civil Liberties Association, and worked as a research associate with the Canadian Centre for Policy Alternatives. In 2011, he joined the New Democratic Party and narrowly lost to Premier Christy Clark in a by-election in the riding of Vancouver-Point Grey. For ten points, name this long-limbed politician who forced Clark to seek reelection elsewhere when he won a rematch for that same seat in the 2013 provincial election.

Answer: David **Eby** (EE-bee, but any reasonable phonetic pronunciation is acceptable)

Some of its tributaries are Ash Creek, Johnson Creek, and Fairview Creek, while the bridges across this river include the Fremont, the St. Johns, and the Broadway Bridge. Along its 301

kilometer main stem, it flows past Lake Oswego, Corvallis, and Beaverton. This river and its tributaries have formed a valley which is home to two-thirds of Oregon's population and is one of North America's most fertile agricultural regions. For ten points, name this river which runs right through Oregon's biggest city, Portland.

Answer: **Willamette** River

This actor was born in London, England, in 1976 to parents Timothy and Wanda. His grandfather was a decorated submarine commander in both World Wars. After school, he took a 'gap year' to teach English in a Tibetan monastery. His most acclaimed roles include Stephen Hawking and Pitt the Younger. He provides the voice for the dragon Smaug in Peter Jackson's Hobbit films and will play Wikileaks founder Julian Assange in The Fifth Estate. For ten points, name this British actor who portrayed Khan in Star Trek Into Darkness and Sherlock Holmes.

Answer: Benedict **Cumberbatch**

In 1930, a team of British archaeologists found primitive equipment for playing this game in the grave of a boy from proto-dynastic Egypt dating back to 3200 BCE. However, its Hall of Fame is in St. Louis. The first written reference of the game comes from 1366 when King Edward III of England banned his troops from playing because it was distracting them from archery practice. The Dutch, English, and Germans all brought versions of this game to the New World where it became connected to gambling and crime and, as a result, Connecticut banned the nine-pin version in 1841. To get around that, a tenth pin was added. For ten points, name this favorite sport of a Jeffrey Lebowski.

Answer: **Bowling** (also accept 10-pin bowling)

"There never came a foreigner to Norway whom all men respected so highly", wrote Snorri Sturleson of this person's visit to Scandinavia, during which he reformed the clergy and established a see in Trondheim. Less than a year later, was elected Pope, placed Rome under Interdict in response to a republican revolt in the city, and crowned Frederick Barbarossa Holy Roman Emperor. A bull known as the *Laudabiliter* that may have been his, or a forgery, appeared during his reign in 1155, granting the English king the blessing of the church to conquer Ireland. For ten points, name this pontiff born Nicholas Breakspear, the only English pope.

ANSWER: **Adrian IV** (accept Nicholas **Breakspear** until it's mentioned)

The poet Juvenal wrote that "a good man is as rare as" one of these, while Aristotle used this term in his *Prior Analytics* as an example of a improbable relationship for a syllogism. Nevertheless, one was eventually encountered in 1697 by Willem de Vlamingh. In *A System of Logic*, John Stuart Mill used it as an example of falsifiability, noting that "civilised people had existed for three thousand years on the earth without meeting with" one. This type of event refers

to one with a probability so small that predictive models do not allow for their possibility, as described in a book subtitled *The Impact of the Highly Improbable.* For ten points, identify this term which names that 2007 work by Nassim Nicholas Taleb, as well the Australian bird *Cygnus atratus*.

ANSWER: **Black swan**

In 2009, this man's biographer observed "we can't help loving him, though we have hated him all these years." He wrote of the wandering hero in such works as *Wayfarers* and *Pan*, while in his first novel, *Hunger*, he chronicled the descent into madness of a young writer in then-Kristiania. In his most famous work, he detailed the primal existence of two individuals, Inger and Isak. However, that epic, *The Growth of the Soil*, may be overshadowed by his political statements in later life, including describing Hitler as "a prophet for the gospel of justice of all nations." Though he gifted it to Joseph Goebbels in 1943, for ten points, name this Norwegian writer who was awarded the 1920 Nobel Prize for Literature.

ANSWER: Knut **Hamsun**

Emperor Theodosius bolstered his forces at the Battle of the Frigidus with 20,000 warriors of this people, who also contributed the bulk of the troops 55 years later at the Battle of the Catalaunian Plains, which halted Attila the Hun's incursion into Gaul. Unsatisfied with their spoils after the earlier battle, they turned south under King Alaric I and marauded through Greece and thence to Italy, where they sacked Rome in 410 CE. For ten points, name this barbarian people who eventually settled and founded a kingdom that included Languedoc, Aquitaine and Spain.

ANSWER: **Visigoth**s (also accept **Vesi**. Prompt on Goths. Do not accept Ostrogoths)

The Irworobongdo, a folding screen decorated with a scene of five mountain peaks and a sun and moon, serves as its traditional background. Unoccupied since the Japanese annexation of 1910, it continued to be vacant when home rule was re-established as a republic in 1945. Twenty-seven monarchs of the Joseon dynasty ruled from it, including Taejo, Sejong the Great, and Sunjong. Now found in the Geunjeongjeon Hall of the Gyeongbokgung palace, for ten points, name the former seat of power of the Korean monarchy, named for a mythical creature.

ANSWER: **Phoenix Throne** (also accept *eojwa*)

Its relative high points include the Lord Howe Rise and Norfolk Ridge, the former of which adjoins onto its Challenger Plateau. Further south, it is indented by the Hikurangi Plateau and the Bounty Trough. The Campbell Plateau juts southward to form its southernmost point at 56 degrees south. At 3.5 million square kilometers, it is about half the size of Australia, or perhaps would be were it not 93 percent below sea level. For ten points name this submerged continental fragment that extends as far north as southern Melanesia and is bisected by Aotearoa.

ANSWER: **Zealandia** (also accept **Tasmantis** or **New Zealand Continent**. Do NOT accept New Zealand or Aotearoa)

An animated version of this book won Best Animated Film at the 1981 British Academy Film Awards. That film was produced by the National Film Board of Canada and featured narration by the author. Illustrated by Sheldon Cohen, the original book is considered an allegory of the relationship and tensions between francophones and anglophones, and is inspired by a true story of small town Quebec in 1946. The main character is horrified when he is sent the wrong apparel from the Eaton's catalogue. Featuring two arch-rival hockey teams and their jerseys, for ten points, name the classic Canadian tale of boys who obsess over their favourite player, Maurice Richard.

The ***Hockey Sweater*** (accept ***Le chandail de hockey***)

The introduction specifies "Ambiance of a psychodrama. The actors enter singly, at random, and each chooses for himself a mask at his leisure," likely symbolizing the arbitrariness of racial difference. Richard Miller completed the standard English translation from the original French, though it began as an attempt to translate an English play into French, from which it retains the same setting, plot, and characters, though it adds Eshu, a "black devil-god." The protagonist debates liberation theory with a mulatto slave and announces that he will henceforth be called "X," and not "Caliban" as his master Prospero named him. For ten points, name this Aimé Césaire play, a postcolonial riff on a Shakespeare comedy.

ANSWER: ***Une Tempête*** (also accept ***A Tempest***. Prompt on just "Tempest" or "Tempete": The specific leading article must be included to distinguish it from Shakespeare's play *The Tempest*. Do NOT accept or prompt on The *Tempest*)

In 2002, this German club became the first, and only, to be publically traded on the German stock market, only to flirt with bankruptcy and relegation, and in 2003, they accepted a 2 million Euro loan from a main rival club to cover their payroll. One of their best years was 2011-12, in which they won a league-cup double including defeating FC Bayern in the DFB-Pokal final. For ten points, name the club that most recently finished second in the Bundesliga and lost the UEFA Champions League final to FC Bayern.

ANSWER: Borussia **Dortmund** (prompt on BVB)

The novel is an account of the death of David Kammerer, who in real life was stabbed in a fight with Lucien Carr. Protagonists Will Dennison and Mike Ryko fail to report the attack, and, like the real-life authors, are subsequently arrested as accessories. Excerpts were published in *New York Magazine* and *World Virus* under the pen-names John Kerouac and William Lee, the latter of which ultimately upheld Carr's request to never publish the book in Carr's lifetime. For ten points, name the "gruesomely comic title" of the 1945 novel by Jack Kerouac and William S. Burroughs that was first published in 2008.

ANSWER: ***And the Hippos Were Boiled in Their Tanks***

In 1984, this man wrote and narrated the documentary "The Greenhouse Effect and Planet Earth" for CBC's *The Journal*, referring to the title subject as "the world's greatest environmental concern." Elected in the Thornhill riding in the 2008 federal election, he accused two opposition MPs as taking a "treacherous course" when they travelled to Washington DC to argue against the Keystone pipeline. Upon this man's criticism of Megan Leslie's nonattendance at a 2011 climate change summit, Justin Trudeau referred to him as a "piece of shit." In December of that year, he declared that "Kyoto, for Canada, is in the past." For ten points, name this man who, on July 15th, 2013, was replaced by Leona Aglukkaq (AH-glu-GAH) as Stephen Harper's Minister of the Environment.

ANSWER: Peter **Kent**

In 1985, this man conjectured that the Rule 110 cellular automaton is Turing complete, proven fifteen years later, and in 1987 founded the journal *Complex Systems*. In his 2002 book, *A New Kind of Science*, he argued for the "computational irreducibility" of many systems, such that they cannot be described using traditional mathematics. With Theodore Gray, he co-developed what he referred to as "a single system … that could do all the computational stuff [he would] ever want to do," released in 1988; the 9.0 version of that software was released November 28th, 2012. For ten points, name this man known for his development of the Mathematica software, notably used in programming his namesake "computational knowledge engine."

ANSWER: Stephen **Wolfram**

In a 2008 episode of *Mad Men*, Ken Cosgrove describes a painting by this artist as something "you're just supposed to experience … like looking into something very deep—you could fall in." Indeed, in 1943 he and Adolph Gottlieb wrote that "art is an adventure into an unknown world." Born in Dvinsk in the Russian Empire in 1903, he became an American citizen in 1938, abbreviating his name due to fears of anti-Semitism. After this man's suicide in 1970, Dominique de Menil eulogized his courage in painting "impenetrable fortresses" of colour. For ten points, name this abstract expressionist whose *White Center* and *Orange, Red, Yellow* have set sales records for postwar paintings at public auctions.

ANSWER: Mark **Rothko** (accept Markus Yakovlevich **Rothkowitz** from the pretentious)

They are famed for their *garra*, or guts, which was never more on display than when they silenced 200 thousand hometown fans at Maracanã Stadium by upsetting Brazil to claim the 1950 World Cup. Known as Le Celeste for their sky-blue jerseys, their all-time leader in caps and goals is Diego Forlan. For ten points, name this South American nation that in 1930 won the first World Cup.

ANSWER: **Uruguay**

In this landmark 1986 case, the named party was found to be in possession of a controlled substance and, as pursuant to the Narcotic Control Act, presumed to intend to traffic said controlled substance. He argued that Section 11(d) of the Charter requires the presumption of innocence, which was contradicted by the reverse onus found in the Narcotics Control Act. This case established a namesake Test, an analysis of the limitations clause in Section 1 of the Charter. For ten points, name this Canadian Supreme Court case.

ANSWER: *Regina. v. **Oakes*** (accept *Crown v. Oakes*)

BONUS

[Moderator: Present Handout 1 with this question; the image is reproduced below for reference. Do NOT hand out *this* sheet; it has the answers on it!]

Sure it works fine for small numbers like a googol, but sometimes scientific notation just won't cut it. For ten points each:

$$G = 3\underbrace{\uparrow\uparrow\cdots\cdots\cdots\cdots\uparrow}3 \left.\begin{array}{l} \\ 3\underbrace{\uparrow\uparrow\cdots\cdots\cdots\uparrow}3 \\ \vdots \\ 3\underbrace{\uparrow\uparrow\cdots\cdots\uparrow}3 \\ 3\uparrow\uparrow\uparrow\uparrow 3 \end{array}\right\} 64 \text{ layers}$$

In 1977, Martin Gardner called this number, notated *G* in Handout 1, "the largest number ever used in a serious mathematical proof."

ANSWER: **Graham**'s number

Graham's number is far, far too large to be written in scientific notation. Instead, this system representing hyper-operated iterative exponentiation, shown in Handout 1, can be used to express it in a reasonably compact form.

ANSWER: **Knuth**'s **up-arrow** notation (accept either underlined part)

Graham's number is the upper-bound solution to a problem in Ramsey theory, which is a branch of mathematics related to graph theory and this branch, which deals with "the study of finite or countable discrete structures."

ANSWER: **Combinatorics** (also accept **Enumeration**)

The Senate Spending Scandal has rocked Prime Minister Stephen Harper's Conservative government. For ten points each, name the main players in the controversy:

1. Since 2010, this senator has claimed about $350 000 in travel expenses. She's also a former journalist who worked for the CBC and CTV.

    Pamela **Wallin**

2. Also a former journalist for CTV, this senator has claimed tens of thousands in living expenses and per diems and created confusion over whether his primary residence is in Ottawa or Prince Edward Island. The Prime Minister's chief of staff resigned after it was revealed he wrote a personal check for $90 000 to this senator to cover the costs.

Mike **Duffy**

3. This man is the former chief of staff for the Prime Minister who resigned after writing that check.

Nigel **Wright**

A reduplicated word is one with two rhyming or similar sounding parts, like walkie-talkie or blither-blather. Given a definition and a sample sentence, give the reduplicated English word for ten points each.

Definition: muddled or secret. It appears in *Hamlet* in the line: "and we have done but greenly / In [blank] to inter him."

ANSWER: **hugger-mugger**

Definition: lively argument. Used by Justice Scalia in his dissent on the DOMA ruling: "whatever disappearing trail of its legalistic [blank] one chooses to follow, ... DOMA is motivated by 'bare ... desire to harm.'"

ANSWER: **argle-bargle**

Definition: an uproar or tumult. From *Macbeth*: "When the [blank]'s done / When the battle's lost and won."

ANSWER: **hurly-burly**

Answer these questions related to biker gangs for ten points each.

In 1966, this author vaulted to literary fame on the success of his book *Hell's Angels: The Strange and Terrible Saga of the Outlaw Motorcycle Gangs*, a gritty kiss-and-tell memoir of his time embedded with the club.

ANSWER: Hunter S. **Thompson**

Founder of the Oakland chapter of the Hells Angels in 1957 and one of the club's most iconic and notorious members ever since, he appears in both Thompson's *Hell's Angels* and Tom Wolfe's *Electric Kool-Aid Acid Test*.

ANSWER: Ralph "Sonny" **Barger**

The Hell's Angels, as well as rival clubs such as the Bandidos, can be described by this numerical adjective which alludes to the club's participation in illegal activities.

ANSWER: **One-percent**er

Sometimes seen as an immediate precursor to the First World War, answer these questions on the Balkan Wars for ten points each.

This 1913 treaty, concluded in a non-Balkan capital city, ended the First Balkan War.

ANSWER: Treaty of **London**

The Treaty of London recognized the borders of this new Balkan state, which had declared its independence in 1912 and thereby denied Serbia an Adriatic coastline.

ANSWER: **Albania**

Unsatisfied with her territorial gains as a victor in the First Balkan War, this nation went to war against her former allies and the Ottoman Empire in the Second Balkan War.

ANSWER: **Bulgaria**

For ten points each, name these writers who have written on the 2008 financial crisis.

In 2012, this Nobel laureate and regular *New York Times* editorialist published *End this Depression Now!*, arguing in favour of increased government spending.

ANSWER: Paul **Krugman**

This writer detailed the rise of the credit default swap market in 2010's *The Big Short*, though he may be better known for his sports biographies *Moneyball* and *The Blind Side*.

ANSWER: Michael **Lewis**

In a 2009 article, this *Rolling Stone* journalist and *Griftopia* author referred to Goldman Sachs "a great vampire squid wrapped around the face of humanity, relentlessly jamming its blood funnel into anything that smells like money."

ANSWER: Matthew **Taibbi**

Answer these questions about Classical economics for ten points each.

What French classical economist authored the 1803 work *A Treatise on Political Economy*?

ANSWER: Jean-Baptiste **Say**

In *The General Theory*, John Maynard Keynes assailed Say's ideas, including his eponymous law, which Keynes paraphrased in what five-word phrase?

ANSWER: "**Supply creates its own demand**"

Say's letters to this British contemporary and fellow economist were published in 1821.

ANSWER: (Thomas) Robert **Malthus**

Answer these questions on classical Persian literature for ten points each.

This 10th and 11th century poet's *Shahnameh*, or *Epic of Kings*, is the national epic of Iran and is viewed as instrumental in revitalizing Persian literature.

ANSWER: Hakim Abol-Ghasem **Ferdowsi** Tusi

The birthplace of poets Saadi [sah-DEE] and Hafez, this city is regarded as the capital of Persian literature, and, appropriately, is a sister city of Weimar, Germany.

ANSWER: **Shiraz**

From his adopted home in Konya, present-day Turkey, this 13th century poet, theologian, and Sufi spiritualist composed his *Masnavi*, a collection of six books of mystical poetry which has been described as "one of the crowning glories of classical Persian literature."

ANSWER: Jalal ad-Dīn Muhammad **Rumi**; or Jalal ad-Dīn Muhammad **Balkhi**; or **Mevlâna**; or **Mowlānā**

Name these Greek sculptors for ten points each.

This man is known for his many commissions under the statesman Pericles, including overseeing the construction of the Parthenon.

ANSWER: **Phidias**

This contemporary of Phidias wrote one of the first books of rules of proportion, the *Kanon*, and is noted for the fluid *contrapposto* style of his *Doryphoros*.

ANSWER: **Polykleitos** the Elder (accept **Polykleitos**; do not accept **Polykleitos the Younger**)

This 4th century sculptor's *Knidian Aphrodite* was one of the first free-standing female nudes. He is also known for the serenity of his *Hermes and the Infant Dionysos*.

ANSWER: **Praxiteles**

Answer these questions about literary Jews for ten points each.

This is the titular character of Christopher Marlowe's *The Jew of Malta*. He is left bereft when Turkish ships seize his money.

ANSWER: **Barabas**

This title pair of a 2000 Pulitzer Prize winner by Michael Chabon, based on the Golden Age of comics, invent the anti-fascist superhero the Escapist.

ANSWER: Joseph "Joe" **Kavalier** and Sam **Clay** (or Sammy **Klayman**)

In *The Sun Also Rises*, this Jew, who studied boxing at Princeton, beats up the bullfighter Pedro Romero. He spends much of the novel pursuing Lady Brett Ashley and being generally disliked by everyone.

ANSWER: **Robert** **Cohn** (accept either underlined)

Name these secondary (and tertiary) characters from the animated sitcom Family Guy:

1. He is Lois Griffin's father, an extremely wealthy captain of industry and a member of the Skull & Bones Society.

   A. **Carter** Pewterschmidt

2. He is Quahog's (ko-HOG) resident doctor. He temporarily loses his medical license when Peter Griffin mistakes a standard prostate exam for sexual assault.

   A. Dr. Elmer **Hartman**

3. John Herbert is a neighbour of the Griffins who openly lusts after Chris Griffin. And he has a dog. Name the dog.

   A. **Jesse**

Name the following tectonic plates for ten points each.

This plate forms the Andes where it subducts against the South American plate.

   ANSWER: **Nazca** Plate

Due north of the Nazca Plate, this plate follows the western coastline of Central America up through the Gulf of California.

   ANSWER: **Cocos** Plate

This plate is bounded to the north by the Nootka fault and is currently subducting under the North American fault.

   ANSWER: **Juan de Fuca** Plate

Name these mythical lands for ten points each.

The fourteenth Dalai Lama did not believe this kingdom a physical place, saying one could reach it only through a "karmic connection." In Hindu myth, it will be the birthplace of Kalki, Vishnu's final avatar.

   ANSWER: **Shambhala**

The Nahua peoples, including the Mexica, were said to have moved here after leaving the caves

at Chicomoztoc. It was a major symbol for the Chicano movement in the 1960s.

ANSWER: **Aztlán** or **Aztatlan**

The Popol Vuh describes the road to this underworld as being fraught with peril, including rivers filled with scorpions, blood, and pus.

ANSWER: **Xibalba** (zhi-BAHL-buh, roughly)

If you ever discover a new species, it may be best to sift through Perez Hilton before you settle on a name. For five points each, name the notable individuals behind the following genus or species.

A trapdoor spider—but unlike the spider's typical hide-and-wait behaviour, this namesake publically petitioned his way into binomial nomenclature.

ANSWER: Stephen **Colbert** (*Aptostichus stephencolberti*)*

A terrestrial pulmonate gastropod mollusc and the only species in the genus *Crikey*.

ANSWER: Steve **Irwin** (*Crikey steveirwini*)*

A genus of geometer moths whose tribe is well-known for their striking colour and butterfly-like appearance—perhaps an homage to its namesake's rise from Los Toldos to Buenos Aires.

ANSWER: Eva **Peron** (also accept **Evita**)

Geography of Jamaica for ten points each.

This region of western interior Jamaica is a rugged, hilly, wild scrubland also known as the "Land of Look Behind."

ANSWER: **Cockpit Country**

While most of the population is concentrated on the south coast, this city, Jamaica's fourth largest, is the biggest on the north coast.

ANSWER: **Montego Bay**

This is the island's largest mountain chain. It contains Jamaica's highest point and is famous for

its coffee.

ANSWER: **Blue Mountains**

For ten points each, name these islands around Great Britain:

1. Two answers required: these are the two biggest of the Channel Islands, and are actually considered a remnant of the Duchy of Normandy and are British Crown dependencies.

    A. **Jersey** and **Guernsey**

2. This island is a short ferry ride away from Southhampton and Newport is its commercial centre. It's also the smallest county in England…but only during high tide.

    A. The **Isle of Wight** (do NOT accept or prompt on Wight Island or Island of Wight)

3. Another British Crown Dependency, this island is located between Great Britain and Ireland in the Irish Sea. Its capital is Douglas.

    A. The **Isle of Man** (do NOT accept or prompt on Man Island or Island of Man)

Name these U.S. presidential biographers, for ten points each.

This man's tomes on the second and the thirty-third American presidents each garnered him Pulitzer Prizes. He is also famous for his military narrative, *1776*.

ANSWER: David **McCullough**

The myth of George Washington and the cherry tree originated in this man's *The Life of Washington*, written in 1800.

ANSWER: Parson Mason Locke **Weems**

This Pulitzer-winner wrote *Dutch*, a controversial memoir of Ronald Reagan, though he may be more famous for his trio of biographies on Theodore Roosevelt, written over three decades.

ANSWER: Edmund **Morris**

We all know the Great Lakes but what about Canada's OTHER lakes? For ten points each,

name these lakes.

1. This lake is actually a reservoir created by the W.A.C Bennett Dam in northeastern British Columbia.

    A. **Williston** Lake

2. This lake is the biggest entirely within Canada, straddling the border between Alberta and the Northwest Territories, named after a large forest mammal.

    A. **Great Bear** Lake

3. This lake in southern Saskatchewan is also a reservoir and bifurcation lake created by the Gardiner and Qu'Appelle River dams. It's named after Canada's 13th prime minister.

    A. **Lake Diefenbaker**

Name these weather phenomenon for ten points each:

1. This is an intense columnar vortex which forms from a cumuliform cloud over a body of water and can be tornadic or non-tornadic.

    A. **Waterspout**

2. This is the term given to a thunderstorm which doesn't produce much, if any, precipitation. Common in the western US during summer.

    A. **Dry Lightning**

3. This extremely rare type of storm happens in regions of strong upward motion within the cold sector of an extratropical cyclone. Thermodynamically, it's no different from any other storm but the intense precipitation can severely limit visibility.

    A. **Thunder snow**

If Vatican City has taught us anything, it's that tiny countries like big domes. The third largest unsupported dome in Europe (and fourth largest in the world) is found in Mosta, Malta. For ten points each, answer the follow questions about the Mosta Dome.

The rotunda was built around the original church, allowing the church to stay open during construction. Name the church that the dome is a feature of.

Church of the **Assumption of Our Lady** (**Knisja Arċipretali Ta' Santa Marija** if there are any Maltese speakers in attendance)

The Mosta Dome is based on the Pantheon of Rome. Name the architect who designed the church.

Giorgio Grognet **de Vassé**

The Mosta Dome is celebrated for the Bomb Miracle, during which a 200kg Luftwaffe bomb fell through the dome onto a congregation awaiting Mass but did not explode. Legend has it that the bomb was filled with sand and a note that said, "Greetings from Plzeň." In what year did the Bomb Miracle take place?

1942

Handout 1

$$G = \left. \begin{array}{c} 3\underbrace{\uparrow\uparrow\cdots\cdots\cdots\cdots\uparrow}3 \\ 3\underbrace{\uparrow\uparrow\cdots\cdots\cdots\uparrow}3 \\ \vdots \\ 3\underbrace{\uparrow\uparrow\cdots\cdots\uparrow}3 \\ 3\uparrow\uparrow\uparrow\uparrow 3 \end{array} \right\} 64 \text{ layers}$$