



2023-24 Post-Secondary Championship (T4) – Pack 3

Head Editor: *Paul Kasiński*

Writers/Editors: *Ian Chow, Odin Fisher-Skau, Max Gedajlovic, Ian Greig, Paul Kasiński, Yadu Kukenthiran, Jenny Mao, Jack van Nostrand, Ryan Sharpe, Joe Su, Isaac Thiessen, Gaian Valdegamo, James Wang, Zhongtian Wang, Adrian Wong*

PACK 3

5-Part Blitz

1. If the sine of an acute angle is three fifths, what is its cosine?
A: **4/5** (accept **0.8**)
2. What painter depicted the Garden of Eden and Hell flanking the fantastical central scene in his triptych *The Garden of Earthly Delights*?
A: Hieronymus **Bosch**
3. Perth is the capital of what largest Australian state?
A: **Western Australia**
4. A distinctive red, blue, and white logo depicting the North Pole with the words "Arctic Program" below is used by what Canadian winter apparel company?
A: **Canada Goose**
5. Name both of India's official languages.
A: **English** AND **Hindi** (accept: **Hindustani**)

Double Jump

6. The ratio between inertial and viscous forces is expressed as what dimensionless quantity?
A: **Reynolds number**
7. Initially invoked to explain d'Alembert's paradox, what region proposed by Ludwig Prandtl sees viscosity effects dominate near no-slip surfaces?
A: **boundary layer**

Double Jump

8. What dish can use shio, shoyu, and tonkotsu broths and is often topped with bamboo shoots and dried seaweed?
A: **ramen** noodles
9. What Japanese word refers to dishes similar to ramen, in which the noodles are served separately and dipped in the broth as they are eaten?
A: **tsukemen**

Set of 4: Canadian Religion

10. Who formed a council known as the Exovedate after having a religious vision in which God instructed him to lead the Métis people to their promised land?
A: Louis **Riel**
11. The Congregationalists, Methodists, and two-thirds of the Presbyterian churches in Canada formed what denomination in 1925?
A: **United** Church of Canada
12. Leo Tolstoy financially helped members of what ethnoreligious group to move to Canada in the late 1800s, with most of them eventually settling in British Columbia?
A: **Doukhobors**

13. Mary Maxwell, who took the name Ruhyyih ["ROO-hee-uh"] Rabbani after marrying Shoghi Effendi, was given the title Hand of the Cause of God by what religion?
A: **Baha'i** Faith

Jackpot

14. Part 1: What actress plays a character who is hesitant to write her name in a book, after which she is told by a demonic figure "I will guide thy hand", near the end of a film?
15. Part 2: A character played by this actress convinces a maniacal chef to let her leave his private island after demanding he prepare a cheeseburger.
16. Part 3: This actress played Gina Grey, whose scheming causes her and her husband Michael to be banished from the Shelby family on *Peaky Blinders*.
17. Part 4: This actress starred as Elizabeth Harmon on the Netflix miniseries *The Queen's Gambit*.
A: Anya **Taylor-Joy**

Set of 3: Chinese Geography

18. Xinjiang ["shin-JANG"] and Tibet are separated by what mountain range that features prominently in Chinese mythology?
A: **Kunlun** Mountains
19. What is the tallest mountain in China?
A: Mount **Everest**
20. What river gives its name to a megalopolis containing Guangzhou, Macau, and Hong Kong?
A: **Pearl** River

5-Part Blitz

21. What Irish-Canadian businessman opened a department store chain that would become the largest retailer in Canada until the mid-20th century?
A: Timothy **Eaton**
22. Known for *The Waltz* and *The Mature Age*, what sculptor was a lover of Auguste Rodin?
A: Camille **Claudel**
23. What was the last dynasty to rule Persia before the Muslim conquest?
A: **Sasanian** Dynasty (accept: **Sassanid** Dynasty, House of **Sasan**)
24. Since 1991, what well-functioning but unrecognized state has controlled the southern shore of the Gulf of Aden, a large swathe of land internationally considered to be part of Somalia?
A: **Somaliland**
25. What rhyming 5-line poetic form known for its humorous style and twist endings is named for an Irish city?
A: **limerick**

END OF FIRST QUARTER

SECOND QUARTER

Splits: Elements of the Periodic Table & *The Phantom of the Opera*

Elements of the Periodic Table

26. The majority of the rare earth metals belong to what series of elements?
A: **lanthanides** (accept: **4f** series)
27. What isotope results from the beta decay of carbon-14?
A: **nitrogen-14** (accept: **N-14**)
28. Which element is found below nickel and to the left of silver on the table?
A: **palladium** (accept: **Pd**)
29. The 6 heaviest synthesized elements were all created in what country's Dubna laboratory?
A: **Russia**

The Phantom of the Opera

30. In the musical, the Phantom and Raoul compete for the love of what woman, a rising star at the Paris opera?
A: **Christine** Daae (prompt on: **Daae**)
31. To announce his opera Don Juan Triumphant, the Phantom interrupts what number at the beginning of Act II, fittingly wearing a costume of "Red Death"?
A: **"Masquerade"**
32. What British composer wrote *The Phantom of the Opera*?
A: Andrew **Lloyd Webber**
33. Because of similarities between the musical's main theme and the song "Echoes", Lloyd Webber was accused of plagiarism by what band's singer and composer Roger Waters?
A: **Pink Floyd**

Double Jump

34. During the 1988 US Olympic Trials, who ran 100 metres in only 10.49 seconds, a women's world record that stands to this day?
A: Florence **Griffith-Joyner** (accept: **Flo-Jo**)
35. Name either of the athletes who, at different events, and within 5 days of each other in August 2021, posted the 2nd and 3rd fastest 100-meter times in history, both representing Jamaica.
A: Elaine **Thompson-Herah** OR Shelly-Ann **Fraser-Pryce**

Double Jump

36. Whose first symphony in C-minor is sometimes known as Beethoven's Tenth?
A: Johannes **Brahms**
37. The fourth movement of Brahms's fourth symphony is in what form similar to a chaconne, in which a bass ostinato is repeated throughout?
A: **passacaglia** ["PASS-ack-AL-ee-a"]

Set of 4: Mexican Music

38. What regional Mexican band collaborated with Fuerza Regida on the song "Bebe Dame" ["BAY-bay DA-may"], and Bad Bunny on the song "Un Porciento"?
A: **Grupo Frontera**
39. Though they make regional Mexican music, Grupo Frontera and Fuerza Regida are both from what other country, where regional Mexican music is also extremely popular?
A: **United States** of **America** (accept either bolded part) (accept: **USA**)
40. What lowest-pitched wind instrument in banda groups like Fuerza Regida resembles a tuba but wraps around one's body?
A: **sousaphone**

41. What "M"-word refers to the traditional ensemble of musicians playing ranchera music, or a member of such a band?
A: **mariachi**

Set of 4: Aeronautical Tragedies

42. What United Airlines flight was hijacked with the intention of crashing into the US capitol building, but instead crashed in Pennsylvania after the passengers revolted against the hijackers?
A: United Airlines Flight **93**
43. In 1977, what island was the site of a runway collision between KLM and Pan Am aircraft that was the deadliest aviation disaster of the 20th century?
A: **Tenerife**
44. What country's Flight 17 was shot down by Russian forces in 2014, four months after its Flight 370 disappeared?
A: **Malaysia**
45. When a bomb placed by Libyan government agents killed all passengers and crew of Pan Am Flight 103 as well as residents below, what town became the site of the then-deadliest terrorist attack in the UK?
A: **Lockerbie**

Linked Set of 5

46. What part of the Earth conventionally has its boundary set at the Karman Line?
A: Earth's **atmosphere**
47. What is by far the most abundant gas in the Earth's atmosphere?
A: diatomic **nitrogen** gas (accept: **N2**)
48. What common nickname refers to the debilitating condition that can befall divers who rise from the depths too quickly and have bubbles of nitrogen build up in their bloodstream?
A: the **bends**
49. What English rock band included songs such as "Fake Plastic Trees" on its album *The Bends*?
A: **Radiohead**
50. On December 12th, 1901, who claimed to have achieved the first transatlantic radio transmission?
A: Guglielmo **Marconi**

END OF FIRST HALF

THIRD QUARTER

Splits: Ancient Structures & Inventors

Ancient Structures

51. What ancient city was connected by the Long Walls to its port of Piraeus?
A: **Athens**
52. What structures were used by the Romans to transport water from the countryside into the cities?
A: **aqueducts**
53. On his deathbed, Augustus made a comment about what two materials to boast of how he had developed Rome?
A: **brick** AND **marble**

54. The "Great Granary" and "Great Bath" are found at what archeological site, the largest city of the Indus Valley Civilization?
A: **Mohenjo-Daro**

Inventors

55. Who popularized the decimal point by using it when he published the first-ever tables of logarithms?
A: John **Napier**
56. What Russian invented the AK-47 rifle, sometimes named after him?
A: Mikhail **Kalashnikov**
57. The three-point seatbelt was invented by Nils Bohlin, an employee at what Swedish automotive company?
A: **Volvo**
58. Who first developed the injectable polio vaccine?
A: Jonas **Salk**

Set of 3: Dr. Strangelove

59. What is the movie's subtitle?
A: or: ***How I Learned to Stop Worrying and Love the Bomb***
60. What British actor portrayed three different characters in the film?
A: Peter **Sellers**
61. In a famous quote from the movie, in what specific location are a number of gentlemen gathered when they are told "You can't fight in here!"?
A: the **war room**

Jailbreak

62. England and Portugal trade cloth and wine in an example famously used to illustrate what economic concept, the ability to produce a good at a lower opportunity cost than one's trading partners and thus make trade gains possible?
A: **comparative advantage**
63. How many points did Kobe Bryant score against the Raptors on January 22nd, 2006?
A: **81** points
64. What author described a city that maintains utopian status through the suffering of a single child in the short story "The Ones Who Walk Away from Omelas"?
A: Ursula K. **Le Guin**
65. Canada's current ambassador to Germany is what NDP politician, who resigned as premier of British Columbia in 2022?
A: John **Horgan**
66. What colour are Atlantic Avenue, Ventnor Avenue, and Marvin Gardens in the classic version of Monopoly?
A: **yellow**
67. A series of connected food chains forms what kind of network?
A: **food web** (prompt on: web)
68. What is the largest river that flows into the Atlantic Ocean?
A: **Amazon** River
69. Often employed in courtrooms, what occupation involves transcribing speech to written shorthand?
A: **stenographer** (accept: **stenography**)
70. Often included for free on Windows computers, in what game does the player click on squares that they think are clear, and mark some other squares with flags?
A: **Minesweeper**

71. What was the name of Napoleon's first wife?
A: **Joséphine** de **Beauharnais** (accept either bolded part) (accept: **Joséphine** Bonaparte) (prompt on: **Bonaparte**)
72. What character sings "Contessa, Perdono" as he asks for forgiveness during the finale of Mozart's *Marriage of Figaro*?
A: **Count Almaviva** (prompt on partial answers)
73. The Gateway Arch is located in what American city, often nicknamed the "Gateway to the West"?
A: **St. Louis**
74. What Batman villain is often seen with an umbrella?
A: the **Penguin**
75. What does the "S" stand for in HTTPS?
A: **secure**

END OF THIRD QUARTER

FOURTH QUARTER

Jackpot

76. Part 1: Who gave a speech in which they asked "Who is here so base that would be a bondman? If any, speak: for him I have offended"?
77. Part 2: Scholars debate whether this is the main character of his story, as he is defeated in the end, but appears far more often than the title character, who only appears in the first half.
78. Part 3: This man's speech won the crowd over to his side, but then Marc Antony gave a speech of his own that turned the crowd back against him.
79. Part 4: Along with Cassius, this character conspired to assassinate Julius Caesar, who said "Et tu?" when he saw this man among his killers.
A: Marcus Junius **Brutus**

Set of 5: Words Ending in "UE"

Given a definition, identify each word that ends with the letters "UE".

80. The amount of money a company brings in, before deducting expenses.
A: **revenue**
81. A small amount of substance left over, such as ash after a fire.
A: **residue**
82. To pacify or bring under control.
A: **subdue**
83. The location of a concert or other event.
A: **venue**
84. An adjective that means not allowing any light to pass through.
A: **opaque**

Set of 4

85. What adjective commonly refers to the number that can be approximated by dividing any entry in the Fibonacci sequence by the entry preceding it?
A: **golden**

86. What actress, who passed away on New Year's Eve 2021, starred as Rose Nylund on *The Golden Girls*?
A: Betty **White**
87. Slavery was abolished in what country as a result of the Golden Law of 1888?
A: **Brazil**
88. What traveler, the husband of Medea, led the Argonauts in stealing the Golden Fleece?
A: **Jason**

12-Part Blitz

89. What two-word term has been used to refer to America's recent achievement of reducing inflation without going into a recession?
A: **soft landing** (accept: **immaculate disinflation**)
90. A regular deck of cards has how many cards worth 10 in blackjack?
A: **16**
91. Arthur Lismer, Franklin Carmichael, and Lawren Harris were all members of what group of Canadian painters?
A: The **Group of Seven**
92. Madeline battles her inner demons while climbing a mountain in what game, often seen as an allegory for trans experiences?
A: **Celeste**
93. What small European country lends its name to a garden in Paris's 6th arrondissement?
A: **Luxembourg**
94. What dog breed, named for a coastal region southeast of Istria, is known for its black and white spots?
A: **dalmatians**
95. Thanks to the creation of numerous "Gholas" over several millennia, who is the only character to appear in all six of the *Dune* novels?
A: **Duncan Idaho** (accept either bolded part)
96. What word refers to the diffusion of water across a semipermeable membrane?
A: **osmosis**
97. What bank, the largest in Quebec, is the sixth largest commercial bank in Canada?
A: **National** Bank of Canada (accept: Banque **Nationale** du Canada)
98. What is the executive branch of the European Union, currently headed by Ursula von der Leyen?
A: **European Commission**
99. In which Canadian province or territory are the mouths of the Petitcodiac, Miramichi, and Saint John rivers?
A: **New Brunswick**
100. In Japanese culture, what kind of event often features a bowl of rice with chopsticks sticking straight up out of the bowl?
A: **funeral**

END OF GAME