



GRADWRITE '24

PACK 7

Head Editor:

Kunaal Chandrashekar

Pack Editor:

Asha Basu

Contributors:

Asha Basu

McKenna Gray

Eli Nason

Matthew Stasiw

Charlotte Bauer

Susanna Liao

Adrian O'Leary

Serena Suleman

Kunaal Chandrashekar

Eva Mandelbaum

Nathan O'Leary

Stefan Vlad

James Ferrabee

Simon Mezo

Anna Reso

Chloe Wei

5-Part Blitz

1. What order of friars names both a group of monkeys and an espresso beverage topped with foamed milk?

A: Capuchin monks (accept: Capuchin friars, Order of Friars Minor Capuchin)

2. Rationalism and empiricism are positions in what field of philosophy dealing with knowledge?

A: epistemology

3. What French word means 'lightning bolt' and lends its name to a pastry filled with cream?

A: éclair

4. Who painted Captain Frans Banninck Cocq in *The Night Watch*?

A: Rembrandt Harmenszoon van Rijn (accept either underlined portion)

5. What stable element is found at the end of the radioactive decay chain of uranium?

A: lead (accept: Pb)

Set of 4: Airports

6. What name is given to the practice of a single flight being sold by two airlines under different flight numbers and designators?

A codeshare agreement

7. Which city is served by Henri Coanda International Airport, the hub of an airline whose English name is Romanian Air Transport?

A: Bucharest (accept: Otopeni)

8. Which organisation gives airports three-letter codes for use on baggage tags and tickets, in contrast to the ICAO's four-letter codes?

A: IATA (accept: International Air Transport Association)

9. What city is served by airports with codes HND and NRT, respectively Haneda and Narita airports?

A: Tokyo

Pyramid – What album am I?

10. **Clue A:** A song from me begins "starry starry night, paint your palette blue and grey" and is titled "Vincent." What album am I?

Clue B: I was released in October 1971 and was dedicated to Buddy Holly. What album am I?

Clue C: My title track discusses how "the lovers cried and the poets dreamed" on "the day the music died." What album am I?

Clue D: That song is Don McLean's most popular, and its chorus includes the line "bye, bye, miss" followed by my name. What album am I?

A: **American Pie**

Set of 4: Colourful Biology

Every answer will contain the name of a colour.

11. Periorbital hematoma is the technical term for what condition, which might result from a punch to the face?

A: **black eye**

12. What name is often given to harmful algal blooms, even though they are not always the namesake colour?

A: **red tide**

13. Granulocytes, monocytes, and lymphocytes are types of what class of cells?

A: **white blood** cells

14. Low blood oxygenation can cause what condition, where lips, fingers, and toes turn blue?

A: **cyanosis**

Double Jump

15. What board game was played by Judy and Peter, before transforming into a video game for a film subtitled *Welcome to the Jungle*?

A: **Jumanji**

16. What Jumanji-like board game features in a standalone sequel to Jumanji that largely takes place in space?

A: **Zathura**

Double Jump

17. What letter must be changed to a different letter in a word meaning shelter from the sun to get another word meaning either a digging tool or a playing card suit?

A: H to P (only reveal if no correct answers: shade to spade)

18. What two letters must be removed from that second word to get a new word referring to a location providing various personal care treatments with mineral spring water?

A: D and E (accept either order) (shade to spade to spa)

Mystery Link

19. What objects are plotted on a Hertzsprung-Russel diagram based on their luminosities and temperatures?

A: star

20. What is the Chinese zodiac animal for the year 2024?

A: dragon

21. A 2010 Edward Hospital Youtube video features robotic arms doing surgery on what?

A: grape

22. What emotion names the suffering of Jesus prior to his crucifixion, as seen in the title of a Mel Gibson film?

A: passion

23. What rank of playing card fits the category?

A: jack

All are words that precede "fruit" in the name of a fruit.

END OF FIRST QUARTER

SECOND QUARTER

Splits: Literary Animals and History of Small-Town Quebec

Literary Animals

All answers will be animals.

24. What type of animal are characters like Snowball and Napoleon in George Orwell's *Animal Farm*?

A: **pig**

25. Wilbur the Pig is saved by what kind of animal named Charlotte?

A: barn **spider**

26. What type of fish does Santiago struggle to catch in Ernest Hemingway's *The Old Man and the Sea*?

A: **marlin**

27. The ancient mariner kills what kind of large bird in a Coleridge poem?

A: **albatross**

History of Small-Town Quebec

28. A land dispute between the Canadian government and the Mohawk Warrior Society occurred in what town in the Montreal Metropolitan Area?

A: **Oka**

29. What hazardous mineral was mined near a town now known as Val-des-Sources?

A: **asbestos**

30. Which prime minister was born in the town of Shawinigan?

A: Jean **Chrétien**

31. Small settlements named L'Habitation and Stadacona were located at the site that would become what city?

A: **Quebec** City

Set of 4: Computer Math

32. How many bits are in 9 nibbles, if a nibble carries half the data of a byte?

A: **36**

33. If I set x to zero, then run the Python code "For i in range zero comma four, x plus equals 1," what will x's value be?

A: **4**

34. How many years would it take the number of transistors on a chip to be multiplied by 32, if, as Gordon Moore suggested, the number doubles every two years?

A: 10

35. If I drop my computer from a height of 20 meters with no initial velocity and no air resistance, to the nearest second, how long will it take to hit the ground?

A: 2 seconds

Set of 3: Barbenheimer

36. What are both the names of the directors of *Barbie* and *Oppenheimer*?

A: Greta Celeste Gerwig and Christopher Edward Nolan (accept either order)

37. John Cena, Ncuti Gatwa, Simu Liu, and Ryan Gosling all portray what character in *Barbie*?

A: Ken

38. In *Oppenheimer*, what actor portrays the often antagonistic Acting Secretary of Commerce Lewis Strauss?

A: Robert John Downey Jr. (accept: RDJ) (prompt on: Robet Downey)

Double Jump

39. Radionuclides from nuclear testing, microplastics, and loss of biodiversity have all been suggested as indicators for the beginning of what human-influenced geological epoch?

A: Anthropocene epoch

40. A failed proposal to recognise the Anthropocene would have, had it passed, ended what current geological epoch?

A Holocene epoch

Double Jump

41. What genre are the pieces *Coppelia*, *Appalachian Spring*, and *Swan Lake*?

A: ballet

42. One of the most famous choreographers of all time, who collaborated with set designer Isamu Noguchi and composer Aaron Copland on *Appalachian Spring*?

A: Martha **Graham**

Linked Set of 6

43. What term is used to describe predators at the top of a food chain?

A: **apex** predator

44. What class of 3D solids is constructed as a polygon with edges connecting each vertex to a single apex above the polygon's plane?

A: **pyramid**

45. Which ancient rulers were buried in large limestone pyramids?

A: **pharaoh**

46. Which kingdom's constituent country of the Faroe Islands held an unsuccessful independence referendum in 1946 despite a majority in favour?

A: Kingdom of **Denmark**

47. Known for his many famous fairy tales, which Danish author wrote "The Little Mermaid"?

A: Hans Christian **Andersen**

48. What style of animation was used in films such as "Isle of Dogs" and "The Fantastic Mr. Fox" by filmmaker Wes Anderson?

A: **stop-motion**

END OF FIRST HALF

THIRD QUARTER

Splits: Brazilian Cities and Paradoxes in Physics

Brazilian Cities

49. Oscar Niemeyer designed the modernist architecture of what planned Brazilian capital city?

A: **Brasilia**

50. Guarulhos and Campinas are cities in the state sharing a name with what most populous city of Brazil?

A: **São Paulo**

51. What city is located at the Encontro das Águas, or Meeting of the Waters, of the Rio Negro and the Amazon, and is the most populous city in the Amazon Rainforest?

A: **Manaus**

52. What city is home to the UNESCO world heritage site of Pelourinho and was the first capital of Brazil?

A: **Salvador**

Paradoxes in Physics

53. What physicist names a paradox where random fluctuations create human brains?

A: Ludwig Eduard **Boltzmann**

54. Einstein used unstable gunpowder in an early version of what paradox, which more famously involves a vial of poison?

A: **Schrödinger's cat**

55. A quantum paradox where measurements slow down a particle's movement is often named for what Ancient Greek philosopher, who developed many paradoxes about the impossibility of motion?

A: **Zeno** of Elea

56. The fact that we haven't met aliens is the subject of which Italian-American physicist's paradox?

A: Enrico **Fermi**

Set of 4: Flash Games

57. Though once considered a myth, what object was able to be "tipped" in the days leading up to the closing of *Club Penguin*?

A: **iceberg**

58. Tack shooters and supermonkeys can be used to pop the title objects in what game series?

A: **Bloons Tower Defense** (accept: **BTD**) (do not accept any specific number or other BTD game)

59. Karen Lyn Davis founded what website that once hosted many flash games, whose name is sometimes used by students to mask the fact that they were playing games in class?

A: CoolMathGames.com

60. The most popular game on CoolMathGames is the third instalment in what platformer series with a simple three-letter name?

A: Run 3

Jailbreak

61. Which king apocryphally started a tradition of standing for Handel's "Messiah"?

A: King George II (prompt on: George)

62. A symbol of what animal would be carried by an aquilifer, a kind of Roman soldier?

A: eagle

63. Jokingly referred to as "emergency food," what companion of the Traveller is the mascot of *Genshin Impact*?

A: Paimon

64. What country's three most recent prime ministers have been Christopher Luxon, Chris Hipkins, and Jacinda Ardern?

A: New Zealand (accept: Aotearoa)

65. The ratio of the area under the Lorenz curve to the area under the line of equality gives what measurement of inequality?

A: Gini coefficient (accept: Gini index, Gini ratio)

66. 114 of what units, further divided into ayats, make up the Qur'an?

A: surah

67. What country is home to a feature known alternatively as the Shining of Karakum, the Darvaza gas crater, or the Gates of Hell?

A: Turkmenistan

68. In order to determine the direction of a reaction, the equilibrium constant can be compared against what quantity, symbolized Q?

A: reaction quotient

69. Which American garage rock band has had hits like "Reptillia", "Someday", and "The Adults are Talking"?

A: The Strokes

70. Which fast food chain was acquired by Ray Kroc in 1961?

A: McDonald's

71. What is the largest object in the asteroid belt?

A: Ceres

72. "A Jug of Wine, A loaf of Bread—and Thou" is a verse of which Persian book of poetry by Omar Khayyam?

A: Rubáiyát [roo-bay-aat] of Omar Khayyám

73. A bicycle wheel, a snow shovel, and a urinal are some of the objects used as readymades by what artist?

A: Henri-Robert-Marcel Duchamp

END OF THIRD QUARTER

FOURTH QUARTER

Pyramid – What city am I?

74. **Clue A:** One art museum in me was originally built as a residence for Prince Eugene of Savoy. What city am I?

Clue B: Although I am not in Spain, the Spanish Riding School is located inside my imperial Hofburg palace. What city am I?

Clue C: The Schönbrunn summer palace and the aforementioned Hofburg were residences for the Habsburg dynasty located in me. What city am I?

Clue D: The Habsburgs ruled the Austro-Hungarian empire from me, and I am the current capital of Austria. What city am I?

A: Vienna

Set of 4: Rice Around the World

75. Valencia was the birthplace of what Spanish rice dish, cooked in a shallow pan?

A: paella [pie-ay-uh]

76. Confusingly translated as "doughnuts" in an English dub of Pokémon, what triangular rice balls might be filled with pickled plums?

A: onigiri (accept: omusubi, nigirimeshi)

77. Hoppin' John, feijoada [fay-joe-AA-da], rajma chawal, and arroz con frijoles [free-HOE-lays] all pair rice with what kind of legume?

A: bean

78. Which rice dish is the subject of friendly rivalry between West African countries over whose version is best?

A: jollof rice

Streak

79. Name up to all four of the authors who tell of the life of Jesus in the canonical gospels of the New Testament.

A: Matthew
Mark
Luke
John

Streak

80. Name up to all six of the teams who have won the La Liga Spanish football title more than once.

A: Real Madrid
Barcelona
Atlético Madrid
Athletic Bilbao
Valencia
Real Sociedad

13-Part Blitz

81. What war was followed by the Newburgh Conspiracy over pay for soldiers of the Continental Army?

A: American Revolutionary War (accept: American War of Independence)
(prompt on: Revolutionary War)

82. "Why buy a mattress anywhere else" is the tagline of what Canadian mattress retailer?

A: Sleep Country Canada (prompt on: Sleep Country)

83. What IUPAC name would be given to the compound Cl₂O₇?

A: dichlorine heptoxide

84. What verbal mood indicates a command?

A imperative mood

85. Andrew Clemens was an artist who worked with what substance in a jar?

A sand

86. Which 2002 movie, starring Nia Vardalos, is the highest grossing rom-com of all time in the US and Canada?

A: *My Big Fat Greek Wedding*

87. What name is shared by Guatemala's national bird and its currency?

A: quetzal

88. What is the lowest number of electoral votes an American presidential candidate would need to win an election by receiving a majority of electoral votes?

A: 270

89. Ryan Bloom argued that "Today, Maman died" is a better translation than "Mother died today" for the opening line of which Albert Camus novella?

A: *The Stranger* (accept: *The Outsider*, *L'Étranger*)

90. Which basketball player's career was the subject of the 2020 miniseries *The Last Dance*, focusing on his time with the Chicago Bulls?

A: Michael Jordan

91. How would you spell a word with a similar meaning to survey, questionnaire?

A: Q-U-E-S-T-I-O-N-N-A-I-R-E

92. What architectural element rests on a stylobate, and is featured in the Doric style in the Parthenon?

A: column

93. Nusantara will replace what city as capital of Indonesia in August 2024?

A: Special Capital Region of Jakarta

END OF GAME