



## 2023 Summer Open (T3) – Pack 1

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**Head Editor:** *Ian Greig*

**Writers/Editors:** *Odin Fisher-Skau, Max Gedajlovic, Ian Greig, Paul Kasiński, Jenny Mao, Ryan Sharpe, Joe Su, Isaac Thiessen, Gaian Valdegamo, Jack van Nostrand, Colin Veevers, Zhongtian Wang, Joyce Xi*

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# PACK 1

## FIRST QUARTER

### 4-Part Blitz

1. The historical rivalry between Russia and Britain over the control of Afghanistan was known by what name?

A: **Great Game**

2. Often used as an exclamation by Kryptonians, what red star did Krypton orbit?

A: **Rao**

3. The notes B-flat, D, and F-sharp make up what sort of triad?

A: **augmented** triad

4. What poetic device, where similar vowel sounds are repeated to create an “echo” effect, is the counterpart of consonance?

A: **assonance**

### Jackpot

5.

Part 1: What adjective describes the period of repression that began after the February 28th incident and continued until the end of martial law in 1987?

Part 2: This word names a Japanese holiday on which men give gifts to the women who gave them chocolate on Valentine’s Day.

Part 3: This adjective is found in the literal translation of the name of Belarus.

Part 4: Waving a flag of this colour is an internationally-recognized sign of surrender.

A: **white**

### Set of 4: Mexican History

9. The world’s largest, at Cholula, and others called “El Castillo” and “of the Sun”, are among the many ancient Mesoamerican structures of what kind?

A: step **pyramids**

10. The Reform War was fought over the attempt of the Constitution of 1857 to limit the power of what organization?

A: Roman Catholic **Church**

11. What political party ruled Mexico as a one-party state for most of the 20th century, and remains its main centrist party?

A: **Institutional Revolutionary** Party (accept: **PRI**)

12. Name any three of the American states that were mostly or entirely part of Mexico until the Mexican-American War.

A: (any three of:) **Texas**, **New Mexico**, **Colorado**, **Arizona**, **Utah**, **Nevada**, **California**

#### **Set of 4: Hurricanes**

13. What 2017 hurricane inflicted over \$100 billion of damage after making landfall in Houston?

A: Hurricane **Harvey**

14. Per the Saffir-Simpson scale, what name is given to a tropical cyclone less intense than a Category 1 hurricane but more intense than a tropical depression?

A: **tropical storm**

15. What longtime mayor of Mississauga who died in January was nicknamed "Hurricane Hazel"?

A: Hazel **McCallion**

16. In what city's PNC Arena do the Carolina Hurricanes play their home games?

A: **Raleigh**

#### **Double Jumps**

17. What novel's title character is raised in Mudfog before running away to London, where he falls in with a group of pickpockets, including the Artful Dodger?

A: **Oliver Twist**

18. Later in his life, Dickens revised *Oliver Twist* to remove some of the antisemitic descriptions of what character, who teaches Oliver and the other children how to pickpocket?

A: **Fagin**

19. Rothera, Vostok, McMurdo, and Amundsen-Scott are all research stations on what continent?

A: **Antarctica** (reject: the Antarctic)

20. Emilio Palma, the first human ever born in Antarctica, was born on what country's Esperanza Base?

A: **Argentina**

## Set of 5

21. After finishing third in the seventh series of *The X Factor*, what band signed with Simon Cowell's record label and later released their debut single "What Makes You Beautiful"?

A: **One Direction**

22. What song, the lead single from the album *Midnight Memories*, has been noted for its strong similarities to "Baba O'Riley" by The Who?

A: **"Best Song Ever"**

23. The lead single from the album *Mind of Mine*, what was the first post-One Direction single released by Zayn Malik?

A: **"Pillowtalk"**

24. Their first single after Zayn's departure, what song begins "I've got fire for a heart, I'm not scared of the dark" and states that "with your love, nobody can" perform the title action?

A: **"Drag Me Down"**

25. "Two Ghosts" and "Sign of the Times" are songs from the self-titled solo album of which One Direction member?

A: **Harry Styles** (accept either underlined part)

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## SECOND QUARTER

### Splits: Electrochemistry & Police Procedurals

#### Electrochemistry

26. Electrons are gained in what kind of half reaction?

A: **reduction** (reject: reduction-oxidation)

27. Name either of the Italian scientists who give their name to a kind of electrochemical cell that generates a current through spontaneous redox reactions.

A: Alessandro **Volta** OR Luigi **Galvani**

28. The electrode potential and absolute temperature is used to calculate the reduction potential of a reaction by what central equation of electrochemistry?

A: **Nernst** equation

29. What diagram, named for a Belgian chemist, displays the chemical species present in an aqueous solution based on the solution's electric potential and pH?

A: **Pourbaix** diagram

## Police Procedurals

30. What franchise of police procedurals was created by Dick Wolf and is known for the “dun, dun” sound effect present in all its opening titles?

A: **Law & Order**

31. In what CBS show are “unsubs” sought out by Penelope Garcia and Spencer Reid on the FBI’s behavioural analysis unit?

A: **Criminal Minds**

32. Based on a book series by Maureen Jennings, on what Canadian series does the titular detective investigate crimes using novel scientific techniques in turn of the 19th century Toronto?

A: **Murdoch Mysteries**

33. Captain Steve McGarrett often declared “Book ‘em, Danno” on what 1968 police procedural, set in a namesake Pacific state?

A: **Hawaii Five-O** (reject: Hawaii Five-Zero)

## Set of 3: American Universities

34. What university in South Bend, Indiana is home to the Fighting Irish sports teams?

A: University of **Notre Dame**

35. Which state contains Baylor University and Rice University?

A: **Texas**

36. Which state’s town of Cambridge contains Harvard and its namesake Institute of Technology?

A: **Massachusetts**

## Set of 4: Carnivorous Dinosaurs

37. What genus of dinosaur’s holotype was destroyed during a World War II bombing raid? This genus is named for the theorized sail on its back.

A: **Spinosaurus**

38. Sue is one of the largest and best-preserved specimens of what species of dinosaur, whose name means “tyrant lizard king”?

A: **Tyrannosaurus rex** (accept: **T. rex**) (prompt on: Tyrannosaurus)

39. Dinosaurs like herrerasaurus and coelophysid [“SEE-loh-FY-siss”] lived during what period, the first in which dinosaurs existed?

A: **Triassic** period

40. A specimen of what dinosaur was found locked in battle with a protoceratops in the Gobi Desert, and is actually much smaller than it appeared in *Jurassic Park*?

A: **Velociraptor** (prompt on: raptor)

## Double Jumps

41. Beethoven's Piano Sonata number 14 in C-sharp minor has what celestial nickname?

A: **Moonlight** Sonata

42. Beethoven's Piano Sonata number 29 in B-flat major, one of the longest and most difficult piano sonatas ever written, has what forceful nickname?

A: **Hammerklavier** Sonata

43. Constructing a hypothesis, testing it by experiment, and analyzing the results are key steps in what two-word process by which new empirical knowledge can be gained?

A: **scientific method**

44. What 1620 book by Francis Bacon introduced his Baconian investigative method, which was instrumental in the development of the scientific method?

A: **Novum Organum**

## 6-Part Blitz

45. After playing in two national championship games with Alabama and winning the Heisman trophy with Oklahoma, who quarterbacked the Philadelphia Eagles to the 2023 Super Bowl?

A: Jalen **Hurts**

46. What Indigenous tribe went extinct after European settlement of Newfoundland forced them further inland?

A: **Beothuk** people/tribe

47. What famous boys-only boarding school in Berkshire, England was founded by Henry the Sixth in 1440?

A: **Eton** College

48. What word can be the opposite of both "heavy" and "dark"?

A: **light**

49. What Dutch artist was inspired by Manhattan's city grid to create such paintings as *Broadway Boogie Woogie*?

A: Piet **Mondrian**

50. The brands Tide, Pampers, Old Spice, and Febreze are all owned by what company?

A: **Procter & Gamble** Company (accept: **P&G**)

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## THIRD QUARTER

### Splits: Greek Mythological Figures & Square Roots

#### Greek Mythological Figures

51. What Athenian inventor was exiled for murdering his nephew before constructing the Labyrinth on Crete?

A: **Daedalus**

52. As well as defeating Periphetes and Sciron, what Greek hero is perhaps best known for killing the Minotaur?

A: **Theseus**

53. Hippomenes distracted what huntress in a footrace by throwing golden apples?

A: **Atalanta**

54. In one version of the myth, what type of animal killed the hunter Orion with its deadly sting?

A: **scorpion**

#### Square Roots

55. Give the simplified form of the square root of 800.

A: **20 times the square root of 2** (accept: **20 root 2**)

56. If  $x$  plus the square root of  $x$  is equal to 56, what is  $x$ ?

A: **49**

57. Raising an expression to what power is equivalent to taking its square root?

A: **1/2** (accept: **0.5**)

58. If the field of rational numbers is extended by including the square root of 2 and the square root of 3, what is the degree of this extension?

A: **4th degree**

#### Set of 3: Asian Cuisine

59. What food consists of a partially developed embryo in an egg, usually of a duck?

A: **balut**

60. Though it technically refers just to the bread, what name is used for a traditional Vietnamese sandwich with meat and vegetables on a baguette?

A: **banh mi**

61. What Korean food consists of egg, meat, and/or vegetables rolled in seaweed, and visually resembles sushi?

A: **gimbap** (accept: **kimbap**)

## **Jailbreak**

62. The phrase "You have died of dysentery" originates from what video game series that began in 1971?

A: *The* **Oregon Trail**

63. What is the YouTube channel of Lia Shelesh, known for her reaction and gaming videos?

A: **SssniperWolf**

64. Who kindly stopped for Emily Dickinson because she could not stop for him?

A: **Death**

65. In what year did the Winnipeg General Strike occur?

A: **1919**

66. What ancient city was home to artifacts such as the Pashupati Seal and the *Dancing Girl* statue, and was the largest known city in the Indus Valley civilization?

A: **Mohenjo-Daro**

67. What director adapted the short story *In a Grove* into the film *Rashomon*?

A: Akira **Kurosawa** (accept: **Kurosawa** Akira)

68. Jinja, Juba, Khartoum, and Cairo are major cities on what river?

A: **Nile** River

69. The Old French words for "sour wine" gave us the English name of what liquid?

A: **vinegar**

70. Which is the only mythical animal in the Chinese zodiac?

A: **dragon**

71. The hashtag is the shift function of what key on a keyboard?

A: **3**

72. What 1967 coming-of-age novel by S.E. Hinton chronicles a greaser gang with members like Sodapop and Ponyboy?

A: *The* **Outsiders**

73. What "M"-word is synonymous with near-sightedness?

A: **myopia** (accept word forms)

74. What word can refer to a measurement of alcohol content or to conclusive evidence?

A: **proof**

75. The upbringing of what fictional boy, alongside that of his wife-to-be, Sophie, is discussed in Jean-Jacques Rousseau's treatise *On Education*?

A: **Émile**



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## FOURTH QUARTER

### Jackpot

76.

Part 1: What geographical entity is bounded to the southeast by an almost perfectly semicircular feature called the Nastapoka Arc?

Part 2: This body of water is located just south of the Foxe Basin, and contains the Belcher Islands.

Part 3: This body of water's namesake lowlands are home to Polar Bear Provincial Park.

Part 4: Most of the rivers in Central Canada drain into this large body of water.

A: **Hudson Bay** (accept: **Hudson's Bay**) (reject: James Bay)

### Streaks

80. The main series of *Star Wars* films depicts several Sith characters on-screen who use the moniker Darth. Give the Sith names of up to all of them.

A: Darth **Vader**  
Darth **Maul**  
Darth **Sidious**  
Darth **Tyranus**

82. Apart from those representing Northern Ireland, and not including the Reclaim Party, name up to all seven political parties currently represented in the UK House of Commons.

A: **Conservative** and Unionist Party (accept: **Tories**, **Tory**)  
**Labour** Party  
**Scottish National** Party (accept: **SNP**)  
**Liberal Democrats** (accept: **Lib Dems**) (reject: Liberal Party)  
**Green** Party of England and Wales (accept: **Greens**, **GPEW**)  
**Plaid** Cymru - The Party of Wales ["PLYDE KUM-ree"]  
**Alba** Party

85. Name up to all three of the attributes in the HSV model used to represent colours.

A: **hue**  
**saturation**  
**value**

## 14-Part Blitz

87. San Simeon, California was the location of what publishing tycoon's opulent estate?

A: William Randolph **Hearst**

88. What gas-filled organ in bony fish helps them control their buoyancy without needing to expend energy by swimming?

A: **swim bladder** (accept: **gas bladder**, **fish maw**, **air bladder**)

89. What is the world's most populous democracy?

A: **India**

90. What portmanteau refers to the act of dressing up as a fictional character, often done at fan conventions?

A: **cosplaying**

91. What machine, which can be dragged along soil to bury seeds at a set depth and regular intervals, was invented by Jethro Tull?

A: **seed drill**

92. What playwright depicted the semi-autobiographical Tyrone family in *Long Day's Journey into Night*?

A: Eugene **O'Neill**

93. What was the main language of the Chola Empire?

A: **Tamilian** (accept: Old **Tamilian**, Middle **Tamilian**)

94. What "B"-word refers to a garment worn by transmasculine people to give the appearance of a flat chest?

A: **binder**

95. The top male golfers from Europe and the United States face off in what biennial team competition?

A: **Ryder Cup**

96. Name both species that humans have evolved into in H.G. Wells's *The Time Machine*.

A: **Eloi** AND **Morlocks**

97. What video game series currently has five installments, titled *Arena*, *Daggerfall*, *Morrowind*, *Oblivion*, and *Skyrim*?

A: *The* **Elder Scrolls**

98. What colour of the rainbow has the shortest wavelength?

A: **violet** (accept: **purple**)

99. What article of clothing comes in rah-rah and pencil varieties?

A: **skirt**

100. Felix Zemdegs and Max Chen have each set several world records in what discipline?

A: solving a **rubik's cube** (accept: speed **cubing**) (accept clear equivalents)