



2022-23 High School Winter Qualifier (T2) – Pack 9

Head Editor: *Zhongtian Wang*

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

PACK 9

FIRST QUARTER

6-Part Blitz

1. Cosecant is the inverse of what trigonometric ratio?
A: **sine**
2. Many Christians in ancient Rome were buried in what kind of underground tombs?
A: **catcombs**
3. Aside from the gastrocnemius ["gas-trok-NEE-mee-us"], what is the other main muscle of the calf?
A: **soleus**
4. What federal government agency is responsible for tax collection in Canada?
A: **Canada Revenue Agency** (accept: **CRA**)
5. On what ship did Charles Darwin sail to the Galapagos?
A: HMS **Beagle**
6. What recreational activity involves using a GPS to search for objects and prizes that other people have hidden?
A: **geocaching** (accept word forms)

Set of 5

7. The song "Breaking Free" is sung during the climax of what 2006 movie by Troy and Gabriella, played by Zac Efron and Vanessa Hudgens?
A: **High School Musical**
8. Who played Sharpay in the *High School Musical* film series?
A: Ashley **Tisdale**
9. Give the full title of the Disney Plus show whose first season focuses on students putting on a production of *High School Musical*.
A: **High School Musical: The Musical: The Series**
10. Name either of the two productions that the second and third seasons of the show focus on, both of which are based on Disney films.
A: **Beauty and the Beast** OR **Frozen**
11. Who starred as Nini in the show before leaving in season 3 to pursue her music career?
A: Olivia **Rodrigo**

Jackpot

12.

Part 1: What leader had their bedroom broken into in 1982 by a man who was later only charged with stealing a bottle of wine?

Part 2: While attending a G7 summit, Pierre Trudeau was caught performing a pirouette behind this leader's back.

Part 3: Due to a series of scandals and separations in her family, this woman described 1992 as her "annus horribilis".

Part 4: This monarch died shortly after the celebration of her Platinum Jubilee in 2022.

A: Queen **Elizabeth II** (prompt on: Queen Elizabeth)

Set of 4: Organic Chemistry

16. Aldehydes and ketones contain a carbon atom double-bonded to what other element with atomic number 8?

A: **oxygen** (accept: O)

17. What symbol is drawn between contributing resonance structures of a compound?

A: **double-headed arrow** (accept clear equivalents) (prompt on: arrow)

18. A triangle is used to represent what thermodynamic quantity that is often added to catalyze reactions?

A: **heat**

19. What functional group is characterized by a carbon-carbon double bond?

A: **alkene** ["al-KEEN"] (reject: alkyne)

Linked Set of 6

20. What book begins with its protagonist drinking the contents of a bottle labeled "Drink Me" and shrinking to be able to fit through a very small door?

A: ***Alice's Adventures in Wonderland*** (accept: ***Alice in Wonderland***)

21. What is the tallest and fastest rollercoaster at Canada's Wonderland?

A: the **Leviathan**

22. Who argued that rule by an absolute monarch was needed to prevent a war of all against all in *Leviathan*?

A: Thomas **Hobbes**

23. What kind of animal is Hobbes in a comic strip by Bill Watterson?

A: stuffed **tiger**

24. Who asked "What immortal hand or eye/could frame thy fearful symmetry" in his poem "The Tyger"?

A: William **Blake**

25. Since 2012, what Canadian actor has been married to Blake Lively?

A: Ryan **Reynolds**

SECOND QUARTER

Splits: Hockey Actions & Fictional Felines

Hockey Actions

Given the description of an action in hockey, give the word for that action.

26. Standing in front of a goalie to block their view of the puck.

A: **screening**

27. Swinging your stick at an opponent to strike them with it, below shoulder level.

A: **slashing**

28. Illegally shooting the puck behind your opposition's goal line from your half of the rink.

A: **icing** (accept: to **ice** the puck)

29. A defenceman advancing aggressively in the offensive zone, often towards the puck.

A: **pinching**

Fictional Felines

30. Name the pink, gap-toothed stray who is the primary love interest of Garfield.

A: **Arlene**

31. What Bengal tiger is the primary antagonist of *The Jungle Book*?

A: **Shere Khan**

32. A. A. Milne created what fictional feline with a springy tail?

A: **Tigger**

33. Whose father is the Emperor-Over-the-Sea?

A: **Aslan**

Set of 3: Jumping

34. What scientist's investigation of corn plants led to the discovery of jumping genes?

A: Barbara **McClintock**

35. In addition to the final jump, what other two jumps are included in the triple jump?

A: **hop** AND **step** (accept: **skip**)

36. Who composed the jazz standard "One O'Clock Jump"?

A: Count **Basie** (accept: William James **Basie**)

Double Jumps

37. Which book of the Bible includes the account of Jesus turning water to wine, and is the only one of the four gospels not considered a synoptic gospel?

A: the Book of **John** (accept: the Gospel of **John**)

38. Which book of the Bible is named for the successor of Moses as leader of the Israelites and details the conquests of Canaan including the fall of the Walls of Jericho?

A: the Book of **Joshua**

39. Appearing with epsilon in the definition of a function's limit, what Greek letter commonly represents a change in a variable?

A: **delta**

40. What physicist's namesake delta function has a value of infinity at zero and a value of zero everywhere else?

A: Paul **Dirac**

Set of 4: Leagues

41. Headquartered in Lübeck, what medieval organization dominated trade in the Baltic and North Seas?

A: **Hanseatic League**

42. What French science fiction author wrote *Twenty Thousand Leagues Under the Sea*?

A: Jules Gabriel **Verne**

43. What Netflix original series about the sisters Vi and Jinx is based on the video game League of Legends?

A: **Arcane: League of Legends**

44. What country's far-right League party is currently led by Matteo Salvini?

A: **Italy**

6-Part Blitz

45. What common model organism has the scientific name *Drosophila melanogaster*?

A: **fruit fly**

46. People who perceive their ability to complete a task to be much higher than it actually is exhibit what cognitive bias?

A: **Dunning-Kruger** effect

47. Montreal and New York each name styles of what popular baked good of Jewish origin?

A: **bagel**

48. Which Chinese dynasty was founded by the Hongwu Emperor in 1368?

A: **Ming** dynasty

49. Plugs, spinners, spoons, and jigs are types of what, which can be used instead of live bait such as worms?

A: fishing **lures**

50. What chain of chicken restaurants popular in Quebec has a yellow logo with a drawing of a chicken?

A: **St-Hubert** BBQ Ltd.

THIRD QUARTER

Splits: Asian Mountains & American Short Story Authors

Asian Mountains

51. Which Himalayan country is home to Gangkhar Puensum, the highest mountain in the world that has never been climbed?

A: **Bhutan**

52. The highest volcano in Asia, Mount Damavand, is part of the Alborz range in what country?

A: **Iran**

53. What notoriously hard-to-climb mountain, also known as Godwin-Austen, is the second-highest in the world?

A: **K2**

54. What is the highest mountain in Japan?

A: Mount **Fuji** (accept: **Fujisan**)

American Short Story Authors

55. Known for his "Iceberg Theory," what American writer wrote "The Snows of Kilimanjaro" and "Hills Like White Elephants"?

A: Ernest **Hemingway**

56. Who wrote about an America where all are forced to be equal in "Harrison Bergeron", a short story from his collection *Welcome to the Monkey House*?

A: Kurt **Vonnegut**

57. "Hop-Frog", "The Cask of Amontillado ["a-mon-tee-AH-doe"]", and "The Tell-Tale Heart" are all horror short stories by what author?

A: Edgar Allan **Poe**

58. Who wrote about a sadistic AI that reduces the protagonist to a living blob in "I Have No Mouth, and I Must Scream"?

A: Harlan **Ellison**

Jackpot

59.

Part 1: What is the English name of the best-known painting by Francesco Hayez?

Part 2: This is the title of a largely rectangular Constantin Brancusi ["brin-COOSH"] sculpture that depicts two eyes with a singular oval.

Part 3: A man with vines in his hair wearing clothing decorated with rectangles stands at the edge of a meadow with another figure in a Gustav Klimt painting with this title.

Part 4: This is the title of an Auguste Rodin sculpture depicting Paolo and Francesca, two lovers engaging in the titular action.

A: *The **Kiss***

Streaks

63. Besides the United Kingdom, six countries have formal territorial claims in Antarctica. Name up to all of them.

A: **Argentina, Australia, Chile, France, New Zealand, Norway**

Set of 4: Wordplay

66. Named after a British minister, what form of wordplay involves switching corresponding sounds between different words in a phrase, such as "fighting a liar" instead of "lighting a fire"?

A: **Spoonerism**

67. The phrase "moon starrer" is an anagram for what profession, which it also describes literally?

A: **astronomer**

68. What letter must be inserted into a word meaning a transaction to get a word meaning an image printed on specially prepared paper that can be transferred to another surface?

A: **C** (deal -> decal)

69. The phrase "Can I slam a bad man?" contains the name of what world capital city?

A: **Islamabad**

6-Part Blitz

70. What philosopher wrote *Thus Spoke Zarathustra*, which expands on his ideas of the Ubermensch and the death of God?

A: Friedrich **Nietzsche** ["NEE-chuh"]

71. Which lobe of the human brain contains the majority of the visual cortex?

A: **occipital** lobe

72. Name both landlocked Canadian provinces.

A: **Alberta** AND **Saskatchewan**

73. Who overthrew the Tarquins ["TAR-kwins"], ending the Roman Kingdom and beginning the Roman Republic?

A: Lucius Junius **Brutus**

74. What kind of fur cap with large flaps covering the ears was popularized in Russia?

A: **ushanka**

75. What name is given to a line that a curve tends toward as it approaches infinity?

A: **asymptote**

FOURTH QUARTER

Set of 3: Musical Theory

76. It's known as a quaver in the UK. What is it called in Canada?

A: **eighth note**

77. Six eight, nine eight and twelve eight are examples of what kind of metre, where beats are subdivided into groups of three?

A: **compound** metre/time

78. The key signature of D major has how many sharps?

A: **two**

Double Jumps

79. Brothers Sam and Dean Winchester travel through the United States hunting monsters on what show?

A: **Supernatural**

80. On the show, God is often referred to by what first name, the name of his cover identity on Earth?

A: **Chuck**

81. What is the largest Mexican state by area, which ironically also names a very small breed of dog?

A: **Chihuahua**

82. What Mexican state lies immediately west of Chihuahua and contains almost all of Arizona's border with Mexico?

A: **Sonora**

83. Cactus Jack Records was founded by what rapper, whose albums include *Rodeo*, *Birds in the Trap Sing McKnight*, and *Astroworld*?

A: Travis **Scott**

84. "The Scotts" is a song by Travis Scott and what other rapper whose debut album is *Man on the Moon: The End of Day*?

A: **Kid Cudi**

Set of 4: The Sun

85. What is the outermost layer of the Sun?

A: **corona**

86. Rounded to the nearest minute, how many minutes does it take sunlight to reach the Earth?

A: **eight** minutes

87. What phenomena follow an 11-year cycle and appear as dark regions of the Sun's photosphere?

A: **sunspots**

88. In a Hertzsprung-Russell diagram, the Sun falls into what region stretching from the bottom right to the top left, which contains most stars in the universe?

A: **main sequence**

12-Part Blitz

89. The Egyptian god Thoth is typically depicted with the head of what bird?

A: **ibis**

90. Since 2013, Jennifer Aniston has been a spokesperson for what skincare brand?

A: **Aveeno**

91. Gregg and Pitman are two kinds of what writing system, commonly used by secretaries until the invention of typewriters allowed for fast notation in regular writing?

A: **shorthand**

92. Which numbered amendment to the American constitution was adopted in response to the Quartering Act previously imposed by the British Parliament?

A: **Third** Amendment

93. "China Before Communism" is a promotional tagline for shows presented by what dance company?

A: **Shen Yun**

94. What term in linguistics describes the grammatical rules that govern how sentences are formed?

A: **syntax**

95. What military strategy consists of intentionally destroying the territory you retreat from to deny its use to your enemy?

A: **scorched earth**

96. What is 15 percent of 40?

A: **6**

97. What product was invented by Swiss engineer George de Mestral when he analyzed the burs that had gotten stuck to his clothes and his dog?

A: **Velcro** (accept: **hook-and-loop fasteners**)

98. What was the two-word codename for the Allied operation that used paratroopers to capture bridges in an attempt to cross the Rhine in 1944?

A: **Market Garden**

99. What Italian word refers to a dessert consisting of ice cream with hot espresso poured over it?

A: **affogato**

100. What nut is produced by oak trees?

A: **acorns**