



2024-25 Post-Secondary Championship (T3) – Pack 7

Head Editor: *Paul Kasiński*

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

PACK 7

5-Part Blitz

1. Henry VIII left Catherine of Aragon to marry what woman?
A: **Anne Boleyn** (prompt on partial answers)
2. What strait separates mainland South America and Tierra del Fuego?
A: Strait of **Magellan** (accept: Straits of **Magellan**)
3. Ammonium chloride has what chemical formula?
A: **NH₄Cl**
4. What city at the end of Cook Inlet is a major air freight hub connecting North America and Asia?
A: **Anchorage**
5. What mythological creature first appeared in the epic poem *Orlando Furioso*, and was later popularized by the character Buckbeak in the *Harry Potter* novels?
A: **hippogriff**

Double Jump

6. Prime numbers that are one less than a power of 2 are known as what kind of prime numbers, after a French mathematician who studied them?
A: **Mersenne** prime numbers
7. According to the prime number theorem, the prime-counting function, which counts all the primes less than the input n , grows at the same rate as what function of n ?
A: **n over log n** (accept: **n over ln** ["lawn"] **n**) (accept "divided by" in place of "over")

Double Jump

8. In 1999, what two nuclear-armed countries fought a brief war over the disputed region of Kashmir?
A: **India** AND **Pakistan**
9. What are the only other two nuclear-armed countries ever to have directly fought a war, in a series of minor clashes in 1969?
A: **Soviet** Union (accept: **Union of Soviet Socialist Republics**, **USSR**, Soviet **Russia**) AND **China** (accept: **People's Republic of China**, **PRC**) (reject: Republic of China)

Set of 4: Whales

10. Outside of other cetaceans, what are the closest living relatives of whales?
A: **hippopotamuses** (accept: **hippos**)
11. During winter, males of what whale species are known to produce complex "songs"?
A: **humpback** whale
12. What word refers to a group of whales?
A: **pod**
13. What Asian country has controversially continued to actively hunt whales?
A: **Japan**

Jackpot

14. Part 1: What company shut down a branch in Pittsfield, Massachusetts in the 2000s after workers there attempted to unionize?
15. Part 2: Another of this company's branches closed after Josh Porter defected to a rival company.
16. Part 3: In 2009, this company was bought out by Sabre International.
17. Part 4: This company's chief financial officer, David Wallace, repurchased it from Sabre. In 2008, its vice president of sales, Ryan Howard, was convicted of fraud. The Scranton branch of this company was managed by Michael Scott until 2011.
A: **Dunder-Mifflin** Paper Company, Inc.

Set of 3

18. What Hungarian gave his name to the type of puzzle most often solved in the activity of speedcubing?
A: **Rubik** Erno (accept: Erno **Rubik**)
19. How many constituent cubes make up a standard 3x3x3 Rubik's cube?
A: **26**
20. Rounded to the nearest second, what is the current world record time for solving a 3-by-3-by-3 cube?
A: **3** seconds

5-Part Blitz

21. Ezra Koenig is the lead singer of what band, whose hits include "Oxford Comma" and "A-Punk"?
A: **Vampire Weekend**
22. The Five Nations became the Six Nations in 1722 when what group joined?
A: **Tuscarora** nation/people
23. In thermodynamics, what device is used to measure the heat involved in chemical reactions?
A: **calorimeter**
24. What is the alliterative nickname for tonight's round of March Madness games?
A: **Elite Eight**
25. Depending on its orientation, what type of object can function as a time machine, a duplicator, or a transmogrifier, in the *Calvin and Hobbes* comics?
A: cardboard **box**

END OF FIRST QUARTER

SECOND QUARTER

Splits: Kinematics & Historical Mysteries

Kinematics

For this category, consider a 1200-kilogram car travelling at a speed of 20 metres per second.

26. In kilometres per hour, what is the speed of the car?
A: **72** kilometres per hour
27. How many kilojoules of kinetic energy does the car have?
A: **240** kilojoules

28. If the car has a centripetal acceleration of 10 meters per second squared, what is the radius of the car's circular motion, in metres?
A: **40** metres
29. If the car slows down at a constant rate of 4 metres per second squared, how many seconds will it take to come to a complete stop?
A: **5** seconds

Historical Mysteries

30. In what location were Prince Richard of Shrewsbury and his brother King Edward V last seen, after they were placed there by Richard III and declared as illegitimate heirs?
A: **Tower of London** (prompt on: the Tower, London)
31. Found adrift in the Atlantic Ocean after leaving New York City for Genoa, what ship mysteriously had all of its cargo and passenger belongings, but none of its crew?
A: **Mary Celeste**
32. The fate of Fred Noonan and what other person after they left for Howland Island remains unknown, though it is widely believed they crashed in the Pacific Ocean?
A: Amelia **Earhart**
33. In 1590, "CROATOAN" was found carved into a tree at what location in Virginia, settled under the command of Walter Raleigh?
A: **Roanoke** Colony (accept: **Roanoke** Island)

Double Jump

34. Who painted a *Soft Construction With Boiled Beans* that he claimed was a "Premonition of Civil War", as evidence for the power of his subconsciousness?
A: Salvador **Dali**
35. What animal titles a painting by Dali in which two tigers and a fish jump out of a pomegranate?
A: **bee**

Double Jump

36. During which century did living standards collapse in the western half of the Roman Empire due to constant civil wars that nearly destroyed the Empire, though it would survive two more centuries?
A: **3rd** century AD (accept: **200s** AD) (reject: 200 AD)
37. What emperor began to resolve the Crisis in the 270s by reuniting the divided empire, thereby taking the title "Restorer of the World"?
A: **Aurelian**

5-Part Mystery

38. Who is said to be buried in the tomb at the National War Memorial in Ottawa?
A: the **unknown soldier** (prompt on: soldier)
39. What element can be found in the nickname for Sudbury, Ontario?
A: **nickel** (accept: **Ni**) (reveal: nickel)
40. Larger and sturdier than an ATV, what kind of off-road vehicle with large wheels is made for driving on desert or beach terrain?
A: **dune buggy**
41. At what kind of event does the College of Cardinals convene to elect a new Pope?
A: papal **conclave**

42. Boston City Hall and Robarts Library in Toronto are buildings in what architectural style, exemplified by a monochromatic palette, minimalist designs, and heavy use of concrete?
A: **Brutalism** (accept: **Brutalist**)

Set of 3: Coding Terms

43. Python is often described as being syntactically similar to what kind of informal notation that programmers use to plan out their programs before they write them?
A: **pseudocode**
44. What "S"-word refers to the set of technologies used in an application, encompassing both the frontend and the backend?
A: **stack**
45. Code that is convoluted and difficult to refactor is given what food-based nickname?
A: **spaghetti** code

5-Part Blitz

46. Argon, 3d1, 4s2 is the electron configuration of what first transition metal?
A: **scandium** (accept: **Sc**)
47. Heard famously in "America" from *West Side Story*, what term refers to a 3-versus-2 rhythmic pattern?
A: **hemiola**
48. What word refers to the material incarnation of a Hindu god, who may have multiple such appearances?
A: **avatar**
49. Who included "Love Hangover" and "Mantra" on *Ruby*, her first album outside of Blackpink?
A: **Jennie** (accept: **Jennie Kim**) (prompt on: **Kim**)
50. What Latin term refers to knowledge that can be gained without any sense experience, contrasted with a posteriori?
A: **a priori**

END OF FIRST HALF

THIRD QUARTER

Splits: Oceans & Video Game Names

Oceans

51. What is by far the world's shallowest ocean, surrounded by North America, Europe, and Asia?
A: **Arctic** Ocean
52. Which two oceans each border every other ocean?
A: **Atlantic** Ocean AND **Pacific** Ocean
53. Oceanic crust mostly consists of what igneous rock?
A: **basalt**
54. By a geological standard that defines oceans as areas of oceanic crust covered by water, the world has three oceans. One is the World Ocean; name either of the others.
A: **Black Sea** OR **Caspian Sea** (prompt on partial answers)

Video Game Names

55. In the 2000s, what word often ended the titles of business simulation games, such as in series beginning with "Railroad", "Zoo", and "Rollercoaster"?
A: **tycoon**
56. Fear of vandals turning a "P" into an "F" caused localizers to come up with what new title for an arcade game whose name originally started with "Puck"?
A: **Pac-Man**
57. What Nintendo character was named for an American lawyer who defended Nintendo in court?
A: **Kirby**
58. Edward Sallow is the real name of what *Fallout: New Vegas* character, an antagonist who leads a namesake "Legion"?
A: **Caesar**

Set of 3: Psychology

59. The intervention of Christina Maslach ended what controversial experiment by Philip Zimbardo that assigned people into "guard" roles?
A: **Stanford prison** experiment (prompt on: prison experiment)
60. Currently on its fifth edition, what tool is used by psychiatrists to determine whether someone has a mental disorder?
A: **DSM-5** (accept: **Diagnostic and Statistical Manual** of Mental Disorders, Fifth Edition)
61. What disorder, included in the DSM-5 despite a lack of scientific consensus that it exists, manifests itself as a "split personality"?
A: **dissociative identity** disorder (accept: **DID**)

Jailbreak

62. What liberal president of Mexico ended the Catholic Church's privileges and nationalized its property, sparking the Reform War?
A: Benito **Juarez**
63. Name either player who assisted on Connor McDavid's overtime goal to give Canada the 2025 Four Nations Faceoff title.
A: Mitch **Marnier** OR Cale **Makar**
64. 100 animals are initially tagged in a mark recapture experiment. If 2% of the recaptured animals are tagged, what is the estimated population size?
A: **5000**
65. Who included stories about a cook, a miller, a knight, and the Wife of Bath in his *Canterbury Tales*?
A: Geoffrey **Chaucer**
66. Though it is not one of the capitals, what is the largest city in South Africa?
A: **Johannesburg** (accept: **Joburg**)
67. To what Indian Ocean country did Britain recently agree to transfer the Chagos Archipelago?
A: **Mauritius**
68. Taking inspiration from Laurel and Hardy, what comedy duo is best known for their "Who's on First" routine?
A: Bud **Abbott** AND Lou **Costello**
69. The name of what tiny, cheap series of single-board computers sounds like a type of dessert?
A: **Raspberry Pi**
70. Although his team ultimately lost, who became only the second player in history to score a hat trick in a World Cup final in 2022?
A: Kylian **Mbappé**

71. What are the two main ingredients in a screwdriver cocktail?
A: **vodka** AND **orange juice** (accept: **OJ**) (prompt on: **juice**)
72. Who depicted consecutive days of the Peninsular War in a pair of paintings titled for days in May 1808?
A: Francisco **Goya**
73. Which organ of the body contains the arcuate fasciculus and the corpus callosum?
A: **brain**
74. Tying the record held by Lil Nas X, what country artist recently spent 19 weeks atop the Billboard Hot 100 for his 2024 hit "A Bar Song (Tipsy)"?
A: **Shaboozey** (accept: Collins **Chibueze**)
75. What movie features the quotes "no man is a failure who has friends" and "every time a bell rings an angel gets its wings"?
A: ***It's a Wonderful Life***

END OF THIRD QUARTER

FOURTH QUARTER

Jackpot

76. Part 1: What country is the source of the English phrase "no can do"? Either this country or a Native American pidgin gave English the phrase "long time no see".
77. Part 2: The English word "pidgin" itself originates from this country, as does the term "brainwashing".
78. Part 3: This country's modern English name is believed to come from the name of the first monarchy that united it. In medieval times, Europeans often called this country "Cathay".
79. Part 4: The prefix "S-I-N-O" begins many words referring to this country, where Cantonese and Mandarin are spoken.
A: **China** (accept: **People's Republic of China, PRC**) (reject: **Republic of China**)

Streak

80. Excluding the title character, name up to all of the six characters with the highest line count in *Hamlet*.
A: King **Claudius** (prompt on: the **King**)
A: **Polonius**
A: **Horatio**
A: **Laertes**
A: **Ophelia**
A: Queen **Gertrude** (prompt on: the **Queen**)

Set of 3: Fruits by Country

83. In 2023, what was Canada's largest fruit crop by volume?
A: **apples**
84. The world's largest producer and exporter of pomegranates is what Asian country?
A: **Iran**
85. Singapore bans what locally grown fruit from being brought onto public transportation due to its distinct smell?
A: **durian**

Set of 3: Roses

86. Who described the titular flower “proving nature’s laws wrong” in his poem “The Rose that Grew from Concrete”, released on a posthumous spoken word album in 2000, four years after his still-unsolved murder?

A: **Tupac Shakur** (accept either bolded part) (accept: Lesane **Crooks**, **Makaveli**)

87. What French word refers to a single flower, often a rose, worn on the lapel of a tuxedo or suit jacket?

A: **boutonnière**

88. In what novel does William of Baskerville investigate a murder at a medieval monastery, written by Umberto Eco?

A: *The* **Name of the Rose**

12-Part Blitz

89. What movie studio often shows distorted, yellowed footage of buildings on their lot before the opening credits of their movies?

A: **Warner Bros.** (accept: **Warner Brothers**) (prompt on: **WB**)

90. What Turkic people were conquered by Tang China in the 7th century?

A: **Gokturks**

91. Outside of the majors, what is the most widely attended tennis tournament, taking place every March in a namesake Californian city?

A: **Indian Wells** Open

92. In what language does prego ["PREGG-oh"] mean "you're welcome"?

A: **Italian**

93. Name either country bordered by Sierra Leone.

A: **Liberia** OR **Guinea**

94. What Biblical parable concludes with a fatted calf being butchered for a celebration?

A: parable of the **prodigal son**

95. In February 2025, creative control over what franchise was transferred from the Broccoli family to Amazon MGM Studios?

A: James **Bond** movies/films/franchise

96. What country consists of an archipelago found between Madagascar and Mainland Africa?

A: the **Comoros**

97. Who sings the aria “Largo al factotum” in *The Barber of Seville*, during which he belts out his name multiple times?

A: **Figaro**

98. Most of Italy's fighting in World War I was against what country?

A: **Austria-Hungary** (accept: **Austro-Hungarian** Empire, **Hapsburg Empire**)

99. Most high-level golf courses have what total par, resulting from an equal number of par-3s and par-5s?

A: par **72**

100. In a 1953 song by Dean Martin, what titular phrase follows the lyrics “when the moon hits your eye like a big pizza pie”?

A: **“that's amore”**

END OF GAME