



2024-25 High School Qualifier (T2) – Pack 6

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PACK 6

5-Part Blitz

1. Norma Desmond says "Alright, Mr. DeMille, I'm ready for my closeup" at the end of what classic film titled for a street in Hollywood?
A: **Sunset Boulevard**
2. Who developed the ideology of ujamaa, and served as the final president of Tanganyika and the first president of its successor state Tanzania?
A: Julius **Nyerere**
3. Raising the temperature to 8 degrees, increasing oxygen levels in the atmosphere to 14%, and creating an ocean are the three goals of what board game?
A: **Terraforming Mars**
4. The Pauling scale measures what quantity, whose difference determines whether a bond will be ionic, polar covalent, or non-polar covalent?
A: **electronegativity**
5. What two giants give their names to a series of novels by François Rabelais?
A: **Gargantua** AND **Pantagruel**

Double Jump

6. When he speaks ex cathedra, who is infallible, according to the First Vatican Council?
A: the **Pope** (accept: Pope **Francis**, Jorge **Bergoglio** ["ber-GO-lee-oh"])
7. Since the official declaration of Papal infallibility in 1870, the only ex-cathedra infallible statement by a pope has been Pius the 12th's declaration of what Marian dogma in 1950?
A: **Assumption** of Mary

Double Jump

8. Nephology is the scientific study of what objects, which can be classified into nacreous, stratus, and cumulus?
A: **clouds**
9. A silver salt of what element is a common material used for cloud seeding?
A: **iodine** (accept: **I**)

Set of 4: The Piano

10. What major scale can be played using only the white keys of a piano?
A: **C** major scale
11. Within 5, how many numbered piano sonatas did Beethoven write?
A: **32** (accept answers from **27** to **37**)
12. Soft, sostenuto, and sustaining are the names of what on a piano?
A: piano **pedals**
13. Both the lowest and highest black keys of a piano play what note?
A: **A-sharp** (accept: **B-flat**)

Jackpot

14. Part 1: What company was co-founded by Chaleo Yoovidhya after a product he created called Krating Daeng inspired its primary product?
15. Part 2: Despite not receiving a formal exemption, this company controversially circumvented the Bundesliga's 50+1 rule by only allowing its own employees to become club members, rather than general fans.
16. Part 3: Competitions sponsored by this company have included the Cliff Diving World Series and Crashed Ice, as well as a 2012 event in which Felix Baumgartner free-fell from the stratosphere.
17. Part 4: The drink sold by this company comes in a red and silver-patterned can and is said to give you wings.
A: **Red Bull**

Set of 3: Ribosomes

18. Ribosomes are assembled in what substructure of the nucleus?
A: **nucleolus**
19. The presence or absence of ribosomes differentiates the rough and smooth variants of what organelle?
A: **endoplasmic reticulum** (accept: **ER**)
20. Which step of the central dogma of molecular biology do ribosomes perform?
A: **translation**

5-Part Blitz

21. Who is the protagonist of *Sword Art Online*?
A: **Kazuto "Kirito" Kirigaya** (accept any bolded part)
22. In the Roman Empire, what kind of objects came in varieties like asses, sestertii, and denarii, and usually bore the head of the Emperor?
A: **coins** (prompt on: currency, money)
23. Cabo San Lucas is located at the southern tip of what peninsula?
A: **Baja California** peninsula ["BA-ha California"] (prompt on: Baja)
24. A young scientist from *Felix the Cat* gives his name to what term referring to a nerdy or bookish person?
A: **poindexter**
25. How many generations of quarks are there?
A: **3**

END OF FIRST QUARTER

SECOND QUARTER

Splits: Taylor Swift Music Videos & Islands of the World

Taylor Swift Music Videos

Given a description of an event from a Taylor Swift music video, name the song.

26. Taylor writes Sharpie messages in her notebook to communicate with her crush, who lives across the street.
A: **"You Belong With Me"**
27. The line "how could the devil be pulling you towards someone who looks like an angel when they smile at you" punctuates an opening monologue.
A: **"I Knew You Were Trouble"**

28. Taylor's children gather at her funeral only to realize she left very little to them in her will.
A: **"Anti-Hero"**
29. Taylor plays an actress pursuing a fiery romance with her co-star while filming a movie in Africa.
A: **"Wildest Dreams"**

Islands of the World

30. What island nation is located approximately 170 kilometres east of Saint Vincent and the other Windward Islands?
A: **Barbados**
31. What country controls the most remote island in the world, Bouvet ["BOO-vay"] Island, as well as the island of Spitsbergen, which houses the Svalbard Global Seed Vault?
A: **Norway**
32. What is the Portuguese-derived alternate name for the island of Taiwan?
A: **Formosa**
33. Red, blue, yellow, and green are the four stripes from top to bottom on the flag of what island nation in the Indian Ocean with capital Port Louis?
A: **Mauritius**

Double Jump

34. Who names the video game series that from 2004 to 2022 was the only one licensed by the NFL?
A: John **Madden**
35. From 1969 to 1978, John Madden was the head coach of what NFL team?
A: **Oakland Raiders** (accept either bolded part)

Double Jump

36. What is x plus 3 times x minus 3?
A: **$x^2 - 9$**
37. You will have 5 seconds. What is $4 + 3i$ times $4 - 3i$, where i is the square root of negative one?
A: **25**

Set of 4: Play Protagonists

38. What titular profession is held by Willy Loman, an Arthur Miller protagonist, in a play titled after his death?
A: travelling **salesman**
39. What title character are Vladimir and Estragon waiting for, in a play by Samuel Beckett?
A: **Godot**
40. Who was depicted at Colonus by Sophocles, who also depicted him gouging his own eyes out after finding the truth of his parentage?
A: **Oedipus**
41. What woman argues with her arms dealer father as she serves in the Salvation Army in a George Bernard Shaw play?
A: Major **Barbara** Undershaft (prompt on: Undershaft)

Set of 4: Arthur C. Clarke

42. Clarke's short story "The Sentinel" was the loose basis for what 1968 film directed by Stanley Kubrick?
A: **2001: A Space Odyssey** (prompt on: 2001)

43. According to Clarke's third law, "any sufficiently advanced technology is indistinguishable from" what?
A: **magic**
44. In a 1945 paper, Clarke discussed the concept of what kind of orbit, now occasionally named for him, in which a satellite appears to stay in a fixed position above the Earth relative to an observer on the ground?
A: **geostationary** orbit (accept: **GEO**) (prompt on: **geosynchronous** orbit, **GSO**)
45. Beginning in 1956 when he moved there to follow his interest in scuba diving, Clarke lived for over 50 years on what island, where he started a diving school near the city of Trincomalee?
A: **Sri Lanka** (accept: **Ceylon**)

5-Part Blitz

46. In the context of medical dissections, what is a dead human body called?
A: **cadaver**
47. Often over 6 feet in length and requiring a draw weight of at least 81 pounds, what weapon proved crucial to the success of English armies at battles like Poitiers and Agincourt?
A: English **longbow** (prompt on: **bow**)
48. The narrator is not limited to any one character's point of view in what kind of third-person perspective?
A: third-person **omniscient** (accept: **omniscient** third-person)
49. Taking its name from a Sanskrit word for body cleansing, what kind of device is used to flush one's nasal cavity or sinuses?
A: **neti** pot
50. Originally meaning a fan of bullfighting, what "A"-word borrowed from Spanish now refers more generally to an enthusiast of something?
A: **aficionado**

END OF FIRST HALF

THIRD QUARTER

Splits: International Holidays & Early Learning

International Holidays

51. What do Americans call their federal holiday on November 11th?
A: **Veterans Day**
52. What country celebrates its national day on the 14th of July, commemorating the storming of the Bastille prison?
A: **France**
53. What festival is celebrated on the 15th day of the 8th Chinese month?
A: **Mid-Autumn** Festival
54. On what calendar date do most countries celebrate their equivalents of Labour Day?
A: **May 1st** (accept clear equivalents)

Early Learning

55. What method uses the relationship between spoken sounds and letters of the alphabet to teach reading to beginners?
A: **phonics** (reject: **phonic**)

56. Who developed a method involving mixed-age classrooms and extensive student freedom while working at the Casa dei Bambini in Italy?
A: Maria **Montessori**
57. Ensuring inclusive and equitable quality education is the fourth of what series of goals proposed by the UN in 2015?
A: **Sustainable Development** Goals (prompt on: SDGs)
58. Friedrich Froebel coined what term for his Play and Activity Institute?
A: **kindergarten**

Set of 3: Video Game Adaptations

59. "And the Ghostly Adventures" was the subtitle of the television adaptation of what video game franchise?
A: **Pac-Man**
60. Ben Schwartz voices what titular animated character alongside Jim Carrey and James Marsden in live action in a 2020 film?
A: **Sonic** the Hedgehog
61. Also known for his role in *The Mandalorian*, what actor stars alongside Bella Ramsey in the TV adaptation of *The Last of Us*?
A: Pedro **Pascal**

Jailbreak

62. What Roman emperor had a "palace" in what is now Split, Croatia, and ended the crisis of the third century?
A: **Diocletian**
63. What letter must be added to the surname of the men's tennis player who won Wimbledon in 2024 to create the name of an island near San Francisco that served as a prison site?
A: **I** (Alcaraz -> Alcatraz)
64. If a note has a frequency of 50 hertz, a note two octaves above it has what frequency?
A: **200** hertz
65. What city is the main setting of *In The Skin of a Lion* by Michael Ondaatje?
A: **Toronto**
66. In December, who defeated Ding Liren to win the 2024 World Chess Championship?
A: **Gukesh Dommaraju** (accept either bolded part) (accept: **Gukesh D**)
67. Main sequence stars at least 8 to 10 times the mass of the sun suffer what explosive fate towards the end of their life cycles?
A: core collapse **supernova**
68. The middle part of what long bone is a common source for bone grafts, as it is still possible to walk without it?
A: **fibula**
69. What player leads all active MLB players in on-base and slugging percentages, and plays centre field for the LA Angels?
A: Mike **Trout**
70. What Italian island names a style of three-quarter-length pants?
A: **Capri**
71. Characters like Octane, Rampart, and Lifeline appear in what EA battle royale hero shooter?
A: **Apex Legends**
72. What country's interior, sometimes called the Red Centre due to its desert landscape, contains the rock formations Kata Tjuta and Uluru?
A: **Australia**
73. Alkali metals have how many valence electrons?
A: **1**

74. Kelowna lies on the shore of what lake?
A: Lake **Okanagan** (accept: **Okanagan** Lake)
75. What scientist names the law that describes how a magnetic field can induce an electromotive force?
A: Michael **Faraday**

END OF THIRD QUARTER

FOURTH QUARTER

Jackpot

76. Part 1: What location is a Civil War veteran magically transported to in an Edgar Rice Burroughs series that was adapted into a film by Andrew Stanton?
77. Part 2: In *Watchmen*, Dr. Manhattan teleports Silk Spectre to this location, which is also the primary setting of a 2011 novel by Andy Weir.
78. Part 3: "There Will Come Soft Rains" was included in a 1950 Ray Bradbury short story collection named for this location. In a different story, Tripods from this location spread red weed and use poisonous black smoke.
79. Part 4: Mark Watney uses his crew's bio-waste to grow potatoes on this location after he is trapped there following a dust storm, in a 2015 film starring Matt Damon.
A: **Mars**

Streak

80. Name up to all four European Union members whose most-spoken language is not Indo-European.
A: **Finland**
A: **Hungary**
A: **Estonia**
A: **Malta**

Streak

82. By worldwide locations, and including breakfast and coffee chains, name up to all of the top four largest American fast-food restaurant chains.
A: **McDonald's**
A: **Starbucks**
A: **Subway**
A: **KFC**

Set of 5: African-American History

84. What city's Greenwood District was known as its "Black Wall Street" until a 1921 massacre?
A: **Tulsa**
85. What agronomist, while at the Tuskegee Institute, fought soil depletion by promoting the growing of peanuts?
A: George Washington **Carver**
86. What track-and-field athlete won four gold medals at the 1936 Olympics?
A: Jesse **Owens**

87. Who gave the “ballot or the bullet” speech and abandoned his “slavemaster surname” of Little after joining the Nation of Islam?
A: **Malcolm X**
88. What abolitionist, who grew up speaking Dutch in New York, gave the “Ain’t I a Woman” speech?
A: Sojourner **Truth**

12-Part Blitz

89. Selecting a pivot, moving smaller data to the right and larger data to the left of the pivot, and recursively applying the same method to each half, describes what algorithm?
A: **quicksort** algorithm
90. Who depicted five sex workers in the proto-cubist painting *Les Femmes d'Alger*?
A: Pablo **Picasso**
91. HM Fort Roughs is a platform off the coast of Essex that is the location of what micronation?
A: Principality of **Sealand**
92. What European capital city names a type of pastry that includes brioche, pains au chocolat, and croissants?
A: **Vienna**
93. What term refers to the condition in which an airplane's wings are suddenly unable to generate lift?
A: aerodynamic **stall** (accept word forms)
94. What DJ has released 5 EPs under the stage name Love Regenerator, and had earlier hits with "One Kiss" and "This is What You Came For"?
A: Calvin **Harris**
95. What quantity is measured as the distance the substance travelled over the distance the solvent front travelled in paper chromatography?
A: **retardation factor** (accept: **retention factor, RF**)
96. With the goal of rebalancing the game, buzz is growing around the idea of the NBA moving what feature on the court?
A: **3-point line** (accept: **3-point arc**)
97. Who was the first Russian ruler ever to declare himself Tsar, in 1547?
A: **Ivan the Terrible** (accept: **Ivan IV**) (prompt on: **Ivan**)
98. What American network broadcast the sketch comedy show *You Can't Do That on Television*, the origin of the practice of being slimed?
A: **Nickelodeon** (accept: **Nick**)
99. What name is given to the warrior aristocracy that established a group of kingdoms in medieval northern and northwestern India?
A: **Rajputs**
100. Name any of the three presidents of the Liberal Democratic Party who have served as prime minister of Japan since Shinzo Abe.
A: Yoshihide **Suga** OR Fumio **Kishida** OR Shigeru **Ishiba**

END OF GAME