



GRADWRITE

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PACK 7

6-Part Blitz

1. Who won the 1923 Nobel Prize in Physics after determining approximately 1.6×10^{-19} coulombs to be the fundamental electric charge through his namesake "oil drop" experiment?

A: Robert **Millikan**

2. What city became the site of the largest non-nuclear explosion in the world when the *SS Imo* and *SS Mont Blanc* collided in its harbour in 1917?

A: **Halifax**

3. What stitch is used in conjunction with a knit stitch to form ribbing or a stockinette stitch?

A: **purl** stitch (accept: **purling**)

4. *The Glory of Commerce* sculptural group adorns the facade of what New York City building designed by Whitney Warren?

A: **Grand Central Terminal**

5. What country did Russia invade in 2008 in support of separatist movements in its regions of South Ossetia and Abkhazia?

A: **Georgia**

6. A device known as the Harrow fails to write "BE JUST" on the back of the Commandant in what short story by Franz Kafka?

A: **"In the Penal Colony"**

Set of 4: Bimetallism in the United States

7. Bimetallists advocated for the use of the "free" form of what metal as currency, in addition to currency which took its value from the gold standard?

A: **silver**

8. In 1878, Rutherford B. Hayes unsuccessfully tried to veto what doubly-eponymous act, which required the U.S. government to buy silver for the production of silver dollars?

A: **Bland-Allison** Act

9. What type of alcohol was used as a term to refer to conservative Democrats that preferred the gold standard?

A: **bourbon**

10. The Cross of Gold speech was given by which three-time presidential candidate, who also argued against teaching evolution in the Scopes Monkey Trial?

A: William Jennings **Bryan**

Pyramid

11.

Part 1: J.J. Thomson shot rays of ions of what element through a crude version of a mass spectrometer to discover the first isotopes of a stable element?

Part 2: On the Allen scale, this element has the highest electronegativity, despite

having no valuation on the Pauling scale.

Part 3: This element, with isotopes 20 and 22, is the first on the periodic table to have a full octet occupying its valence shell.

Part 4: This noble gas glows orange-red when a current is run through it, a property used to create its namesake lights.

A: **neon** (accept: **Ne**)

Set of 3: Women of Opera

14. Who commits suicide after learning that her husband, Lieutenant Pinkerton, left her and their child to marry an American wife in a Giacomo Puccini opera?

A: **Cio-Cio-San** (accept: Madama **Butterfly**, Madame **Butterfly**) (reject: **M. Butterfly**)

15. What aria does the title character sing as she first enters the stage in George Bizet's opera *Carmen*?

A: **Habanera** (accept: "**Love is a rebellious bird**", "**L'amour est un oiseau rebelle**")

16. The nicknames "The Tigress" and "The Divine" were given to what Greek-American prima donna?

A: Maria **Callas**

Double Jump

17. As computed by a young Gauss in a famous story, what is the sum of all the integers from 1 to 100 inclusive?

A: **5050**

18. What is the sum of all the odd integers that lie between 1 and 99 inclusive?

A: **2500**

Double Jump

19. Separated from the rest of the country by the Carpathian mountains, which region of Romania houses the fictional castle of Count Dracula?

A: **Transylvania**

20. A blue and yellow flag with a white crescent and star represents what historic, Hungarian region of Transylvania, whose cultural centres correspond mostly to Harghita and Covasna?

A: **Székely Land** (accept: **Szeklerland**)

5-Part Mystery Link

21. What colour is the cochineal, the insect from which carmine dye is made?

A: **red**

22. An upvote awards the comment's user with an increase of ten in what metric, which Stack Exchange sites use to measure trustworthiness?

A: **reputation**

23. What name is given to mathematical results which, although unpublished and with no clear original source, are nevertheless widely accepted as true?

A: mathematical **folklore** (accept: **folk mathematics**; but reveal: **folklore**)

24. In the 2017 live action remake, what song is performed by the Beast after he releases Belle from the castle so she may aid her father?

A: "**Evermore**"

25. The Romanian Revolution, the Velvet Revolution, and the fall of the Berlin Wall all occurred in what year?

A: **1989**

All answers are Taylor Swift albums.

END OF FIRST QUARTER

SECOND QUARTER

Splits: Aerodynamics & Dating in Video Games

Aerodynamics

26. What force opposes forward thrust in level flight of an airplane?

A: **drag**

27. What control surface, forward of the main wings, improves stability in the same fashion as a rear stabilizer?

A: **canard**

28. Some vertical takeoff and landing aircraft, including the Avrocar, make use of what effect in which a jet of fluid clings to an adjacent curved surface?

A: **Coandă** ["KWAN-duh"] effect

29. What type of attitude is controlled by the ailerons and occurs along the longitudinal axis, as contrasted with yaw and pitch?

A: **rolling** attitude

Dating in Video Games

30. What two *Stardew Valley* characters were given new heart events and dialogue in the 1.1 update to reflect their updated marriage candidacy?

A: **Shane** AND **Emily**

31. What Korean mobile game's gameplay consists of 11 real-life days of the player answering calls and texts from characters like Zen, 707, and Jumin Han?

A: ***Mystic Messenger***

32. What mascot does the player attempt to romance in a 2019 parody game subtitled "A Finger Lickin' Good Dating Simulator"?

A: Colonel **Sanders** (accept: Harland **Sanders**)

33. In what dating simulator can players try to convince characters like werewolf Scott Howl to dance with them at the title event at Spooky High?

A: **Monster Prom**

Set of 3: Ticks

34. What composer wrote the semi-autobiographical musical *tick, tick... BOOM!* prior to his musical *Rent* being staged on Broadway?

A: Jonathan **Larson**

35. Bullseye shaped Erythema migrans rashes characterize what blood-borne disease transmitted by ticks?

A: **Lyme** disease

36. Who cited gender-based violence when suing producer Dr. Luke, with whom she co-wrote her debut solo single "TiK ToK"?

A: **Kesha** Rose **Sebert** (accept either bolded part)

Set of 4: Evil

37. What destructive spirit embodies the evil concept of Druj as the main adversary of Ahura Mazda in Zoroastrianism?

A: **Angra Mainyu** (accept: **Ahrimanes**)

38. In what children's show does the "League Of Villainous Evildoers Maniacally United For Frightening Investments in Naughtiness" include such members as Dr. Diminutive, Rodney, and Dr. Doofenshmirtz?

A: **Phineas and Ferb**

39. Who argued that good and evil are mere emotional affections and evil does not exist to the comprehension of God in his *Ethics*?

A: Baruch **Spinoza**

40. Who is the only evil ex-girlfriend of Ramona Flowers in *Scott Pilgrim vs. The World*?

A: **Roxie Richter** (accept either bolded part)

Double Jump

41. What country's name and its word forms are the only English words to contain the consecutive letters FGH?

A: **Afghanistan**

42. What word and its plural are the only English words to contain the consecutive letters LMN?

A: **calmness**

Double Jump

43. In 1934, what country's government executed Operation Hummingbird, or the Night of the Long Knives?

A: Nazi **Germany**

44. Nazi propaganda claimed that the Night of the Long Knives was a measure taken to prevent a coup by what German officer, the chief of the SA?

A: Ernst Röhm

6-Part Linked Set

45. What is the theoretical maximum number of squares a bishop can traverse in one move in a game of chess?

A: 7

46. What is the binary representation of the decimal number 7?

A: 111 ["one one one"]

47. In numerology, what colloquial term is used to refer to repeating number sequences which are believed to have spiritual significance, such as 111?

A: angel numbers

48. Plates made of what material were revealed by the angel Moroni to Joseph Smith in the Mormon faith?

A: gold

49. What element's disulfide is commonly known as pyrite, or fool's gold?

A: iron

50. What British Prime Minister was nicknamed "the Iron Lady"?

A: Margaret Thatcher

END OF FIRST HALF

THIRD QUARTER

Splits: Women in Greek Mythology & African Rivers

Women in Greek Mythology

51. What name is shared by the Nereid ["NEER-ee-id"] beloved by Acis ["AY-sis"] and the statue carved by Pygmalion and brought to life by Aphrodite?

A: Galatea (accept: Galathea)

52. In a ploy by the gods to release evil on humanity, who was created as the first woman in Greek mythology?

A: Pandora

53. Who, in a Euripides ["yur-RIP-pid-deez"] sequel, has been made a priestess of Artemis in the land of the Taurians after she was replaced by a deer on her sacrificial altar?

A: Iphigenia

54. Of what island kingdom was Ariadne a princess before aiding in the slaying of her half-brother, the Minotaur?

A: Crete

African Rivers

55. Designated a UNESCO World Heritage site due to the diverse fauna it supports, what seasonal inland river delta is located in Botswana's Kalahari Basin?

- A: **Okavango** River Delta
56. What transnational national park is named for the meandering shape of the Niger ["nee-ZHAIR"] River?
- A: **W** National Park
57. Victoria Falls is located on what river, which forms part of the border between Zimbabwe and Zambia?
- A: **Zambezi** River
58. What two colours are affixed to the names of the two major tributaries that meet in Khartoum to form the Nile river?
- A: **blue** AND **white**

Set of 4: Also a Music Term

Given the definition of a music term and a non-music alternate definition, provide the word.

59. A line segment joining two points on the circumference of a circle, or a group of three or more notes played simultaneously.
- A: **chord**
60. A small slide between two notes, or an acute turn in a path.
- A: **bend**
61. A temporary mental state of dissociative amnesia, or a polyphonic composition paired with preludes in *The Well-Tempered Clavier*.
- A: **fugue**
62. A percussion instrument consisting of two wooden plates connected by a hinge, or visual type of comedy that relies on absurd situations and exaggerated clumsiness.
- A: **slapstick**

Jailbreak

63. In the *Steven Universe* episode "Jail Break," what character is revealed to be a fusion between Ruby and Sapphire?
- A: **Garnet**
64. The densely populated island of Salsette is in what Indian city, the nation's financial center?
- A: **Mumbai** (accept: **Bombay**)
65. Richard Papen reflects on his friend Bunny's murder at Hampden College in what prototypical "dark academia" novel by Donna Tartt?
- A: *The **Secret History***
66. Fata Morgana is one type of what optical phenomena that result from air temperature gradients?
- A: **mirage**
67. What store's double chunk chocolate cookie received a boom from AJ, Big Justice, and other members of its namesake "family" on TikTok?
- A: **Costco** Wholesale Corporation
68. According to legend, what woman protested her husband's high taxes by riding through her town on horseback completely nude?

- A: Lady **Godiva**
69. Whisky and aquavit were key factors in determining the ownership of what Arctic island disputed by Canada and Denmark?
- A: **Hans** Island
70. What K-pop group's second EP *Get Up* features songs like "ETA", "Cool With You", and "Super Shy"?
- A: **NewJeans** (accept: **NJZ**)
71. Literally translating to "Old Godmother", what brand of Guizhou sauces is credited with popularizing Chinese chili oil in the West?
- A: **Lao Gan Ma**
72. The name of what green space to the southeast of the Eiffel Tower alludes to its former usage as a military training ground?
- A: **Champ de Mars**
73. Who was inspired by his free osteomyelitis surgeries at age 7 to introduce North America's first universal healthcare system?
- A: Tommy **Douglas**
74. What substance does the Buddha find bitter, Confucius find sour, and Laozi find sweet in a typical subject of Chinese painting?
- A: **vinegar**
75. What word precedes "Regained" and "Lost" in the titles of works by John Milton?
- A: **paradise**

END OF THIRD QUARTER

FOURTH QUARTER

Pyramid

76.

Part 1: What athlete gained "the Tiger" as a nickname, in reference to being born in the year of the tiger in 1998 as well as a tattoo on their left forearm?

Part 2: This player was awarded Newcomer of the Year in 2018 and recently became the first player since 2015 to hit 12,000 points in the WTA rankings.

Part 3: Winning an upset against this player, who was a favourite to win, launched Amanda Anisimova into the 2025 Wimbledon final.

Part 4: This Belarusian athlete is currently ranked number 1 in the world for women's singles.

A: Aryna **Sabalenka**

Set of 3: Canadian Road Signs

79. What province or territory features a polar bear on their highway shield?

A: **Northwest Territories**

80. What sign, which tells merging drivers to wait and let other drivers proceed, is an inverted triangle with a red border?

A: **yield** sign

81. How many sides are on the polygon that makes up a Canadian school zone sign?
A: 5

Set of 4: '80s Coming of Age Movies

82. An iconic hallway chase occurs in the middle of what film following five high school students from different cliques bonding during detention?

A: *The **Breakfast Club***

83. Gordie Lachance and his friends attempt to find the body of his childhood best friend in what film titled after a Ben E. King song?

A: ***Stand By Me***

84. What actor plays Welton Academy alumnus and English teacher John Keating in *Dead Poets Society*?

A: Robin **Williams**

85. Lloyd stands outside Diane's window holding a boombox above his head in an iconic scene from what 1989 rom-com?

A: ***Say Anything...***

15-Part Blitz

86. What organ did the now-disgraced surgeon Paolo Macchiarini claim to have successfully replaced with a synthetic alternative, by using a plastic tube with embedded stem cells to connect the larynx to the bronchi?

A: **trachea** (accept: **windpipe**)

87. What rebel group captured the city of Goma in the Democratic Republic of the Congo in 2025?

A: **M23** (accept: **March 23** Movement, **Congolese Revolutionary Army**)

88. *Slouching Towards Bethlehem*, *The White Album*, and *The Year of Magical Thinking* are all works by what American journalist?

A: Joan **Didion**

89. What U.S. city's unincorporated region of Paradise contains its namesake "strip"?

A: **Las Vegas** (prompt: **Vegas**)

90. Laxmi's husband leaves her for a stranger on a plane and Miranda begins an affair with Dev in what short story by Jhumpa Lahiri?

A: **"Sexy"**

91. Open and closed shops are security agreements between employers and what type of organisation?

A: trade **unions**

92. In chemistry, what substance has both a K_a and K_b of around 10^{-14} ?

A: **water**

93. What term, describing a clustered network of contiguously urbanized cities, titles a 2024 Francis Ford Coppola box office flop?

A: **megalopolis**

94. The Realm of the Four Parts, or Tawantinsuyu ["ta-WAHN-tin-soo-yoo"], was the

endonym of what civilization?

A: **Incan** Empire (accept: **Inca** civilization)

95. What philosophical work, interpreted by Jean Hyppolite as a *bildungsroman*, serves as preparation for the later *Science of Logic*, also by Hegel?

A: *The **Phenomenology of Spirit***

96. A 1961 G.E. Hutchinson paper discusses the "paradox" of what group of organisms, attempting to explain the apparent contradiction between their incredible diversity and the competitive exclusion principle?

A: phyto**plankton**

97. A meridian 370 leagues west of Cape Verde was defined in what treaty signed between Portugal and Spain in 1494 to divide up ownership of the New World?

A: Treaty of **Tordesillas**

98. What character "is the villain" in the title of a Kimberly Belflower play that centres on a group of high school students reading *The Crucible*?

A: **John Proctor** (prompt partial answers)

99. What temperate fertile plain covers all of Uruguay, Brazil's Rio Grande do Sul, and eastern Argentina?

A: **Pampas** Plain

100. A cover by Snowd4y ["SNOW-day"] and Drake parodies what song by asking its original dedicatee "wah gwan"?

A: "**Hey There Delilah**"

END OF GAME