ROYAL STATISTICAL SOCIETY

Christmas QUIZ

2023

30TH ANNIVERSARY EDITION!

Created and edited by
Dr Tim Paulden, RSS Quizmaster

Entries will be accepted until
21:00 GMT on Monday 29 January 2024

For full rules, solving tips, and details of prizes,
please visit the quiz webpage via the link below:

www.rss.org.uk/xmasquiz2023

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Total points available: 100

Puzzle 1: JUST THE JOB [16 points]

*Contributed by **Richard Job***

This year's quiz begins with a collection of challenges contributed by puzzle aficionado Richard Job, who devised our 2022 RSS Christmas Quiz, and who sadly passed away in November 2023.

Note: Each of the parts below can be solved independently – there is no overarching connection between them.

A)   What animal connects Marc Chagall, Olivier Messiaen, Jasper Johns, Yehudi Menuhin, Frank Gehry, Daniel Barenboim, Jessye Norman, and Paul McCartney?

B)   Which song's chorus features five male names beginning with J, S, R, G, and L respectively, each containing 3 or 4 letters?

C)   What annual task has been carried out by Mary Warnock, Bill Bryson, Carol Ann Duffy, and Antony Beevor (among others)?

D)   B (or BR), C, BR, L, S, H, L, DR, and K appear in clockwise order around the edge – where?

E)   In what way are Stephen and Viola, Edwin and Marion, and James and Virginia important – and why is Marion's maiden name ironic?

F)   Each of the twelve words below is deficient in one of three ways. Place them into three groups of four and explain the deficiencies.

amen	dean	fade	fend	heir	lost
maroon	merry	plated	rectory	sled	war

G) Identify each of the three sequences below and fill in the blanks. (Note: A blank may represent a single letter or pair of letters.)

- M, G, ■, H, N, ■, P, C, E, P, C
- T, E, ■, G, J, ■, T, D, D, D, O, …
- H, L, ■, A, V, ■, P, K, E, C, E, …

[Hint: The themes of the three sequences are sport, geography, and children's entertainment – not necessarily in that order.]

H) Identify the following and place in chronological order:

Darwin's demise; direction; hallucination; modern convenience; ploughing; tool to ensure flatness; underground lines

[Hint: If confused, "European thyme essay" might help.]

I) What was won by a USA competitor on every occasion from 1921 until 1988, except for two (1965 and 1966) – and who were the two exceptions?

J) Since 1900, what have the following Prime Ministers – appropriately – done the indicated number of times?

- three times: Blair

- twice: Ramsay MacDonald, Attlee, Thatcher, Major

- once: Gascoyne-Cecil, Campbell-Bannerman, Asquith, Churchill, Heath, Callaghan, Cameron, May

K) What prize-winning 'double' happened in 1903, 1935, 1947, 2014, and 2019?

Puzzle 2: THREES (MIX = NEW ARRIVAL) [6 points]

*By **Tim Paulden***

Which star appeared (and disappeared) many times this year in the location represented below?
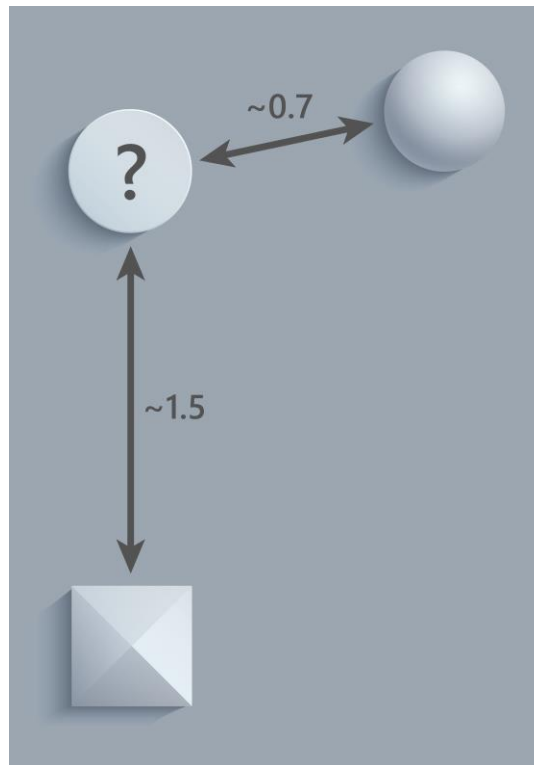
What property (symbolically linked to the location's faux heritage) is shared by the star's four collections – and if this persists, why might future appearances be expected shortly after 2029, 2033, 2040, 2042, and so on?

Identify the ancient French connection hidden in the puzzle title, and explain how the star's celebrated 'arrival' in the 2000s was coincidentally timed (representing the addition of a single symbol).

Finally, which of the star's collections is linked to this year's quiz – and how does adding a single symbol (of a different kind) provide the arrival date of a new 'star' (*cf. 2021, Puzzle 1*), whose name is also hidden in the puzzle title?
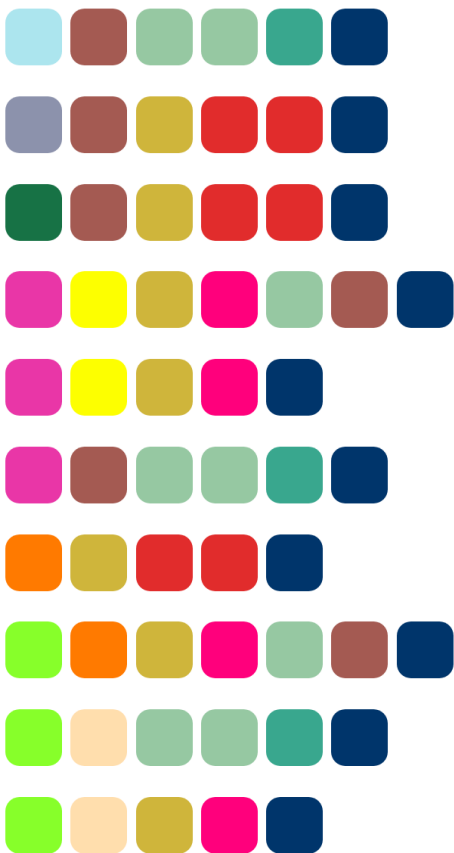
Puzzle 3: SEASONALLY ENTERTAINING [4 points]
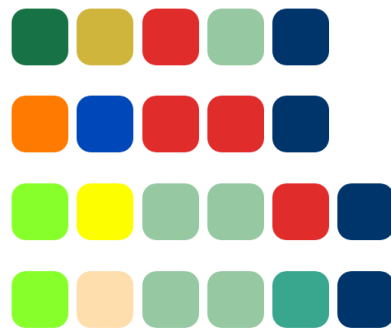
*Contributed by **Becky Russell***

The collections A and B below are each missing at least two items.

Can you identify the collections, and determine which items are missing?

Puzzle 4: FROM ORLANDO TO BRADFORD [5 points]

*Contributed by **Benedict Howell** and **Susannah Williams***

Solve the following clues (presented below in chronological order). When the solutions are rearranged, they form an acrostic that can be preceded by a number to make another thematic solution.

- Provider of temporary accommodation founded in 1952
- Purple plant with orange and yellow beard, made by Black
- 2013 Chinese New Year drama
- Short story which involves a flight from Ukraine to St Petersburg
- 2022 fiction book about a fake relationship on a talent show
- 2014 thriller series based around returning a man to a Blue House
- American rock band, fronted by RJD, with a singular name that was previously plural
- A request for an old blue car, a boat, and lucrative mineral mining rights, inter alia
- Greyhound abandoned for finishing last in a race
- Phenomenon observed in the Alps in 2021 and first observed in 1818 at (75.90, -67.25)
- Encountering book #49, whose female equivalent is #36

Puzzle 5: WWE SUPERSTARS [4 points]

*Contributed by **Steve Barrett***

Explain the list below – which constitutes a complete set, as of December 2023 – and fill in the blank.

How is the equation *1 + 2 + 3 + 4 = 10* relevant, and what fabulous anniversary has been celebrated this year?

(DTCPPTTPP) – (PTC) $\longrightarrow$ GF

(PTCP) – (PP) $\longrightarrow$ ML

(PPDPD) – (PPDP) $\longrightarrow$ JS

(PPPPPPTCTC) – (PPPP) $\longrightarrow$ MB

(PPPTPD) – (TPPPP) $\longrightarrow$ ▮

(PPPPP) – (PP) $\longrightarrow$ PM

(TP) – (TC) $\longrightarrow$ TW

(PPPTCTDPTC) – (PTCTC) $\longrightarrow$ DC

(PPPPPPTCTC) – (PPPP) $\longrightarrow$ HP

(PPPP) – (PPT) $\longrightarrow$ HP

## Puzzle 6: GET YOUR FACTORS STRAIGHT [5 points]

*By **Tim Paulden***
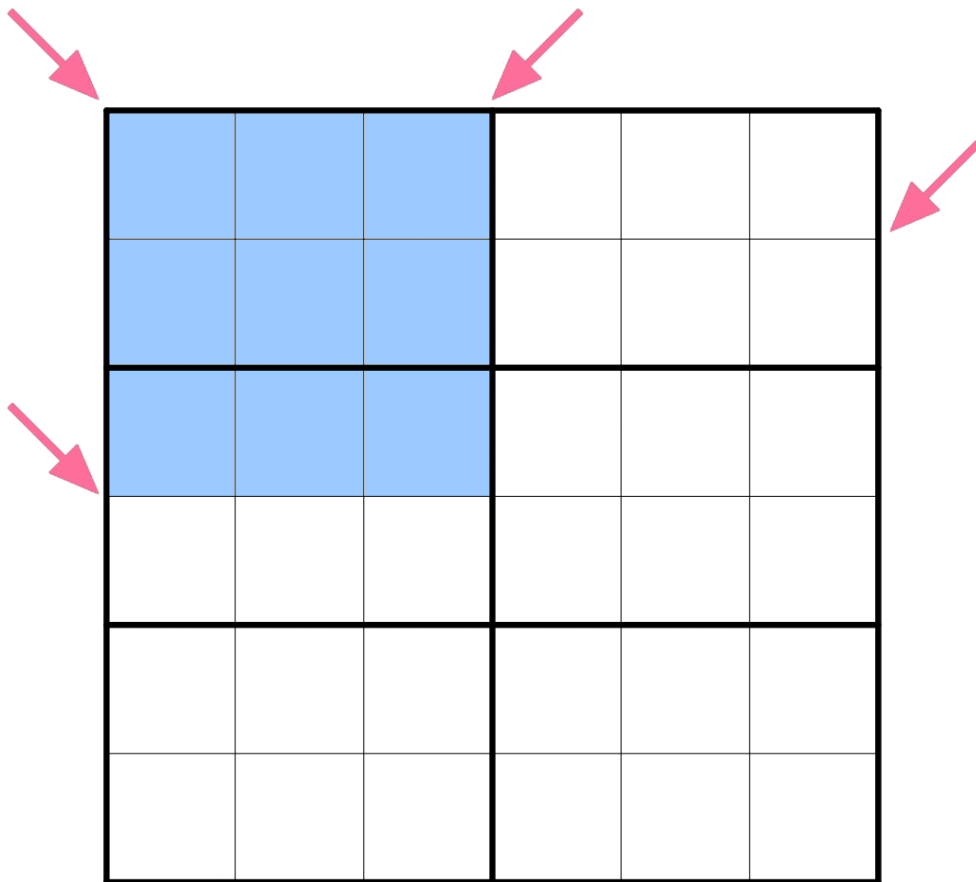
(Normal Sudoku rules for this grid size apply. The product of the numbers on each pink diagonal equals the sum of the numbers in the blue square.)

Puzzle 7: TED TALKS [3 points]

*By **Tim Paulden***

What is represented by the diagram below, in the end, and what value is taken by the question mark in the top-right?

[Note: There are two possible answers, differing by two.]

18	25

22

1

9	3	19	7	20	21	33	81	17	?

2	24	4	5	8	12	13	14	28	16
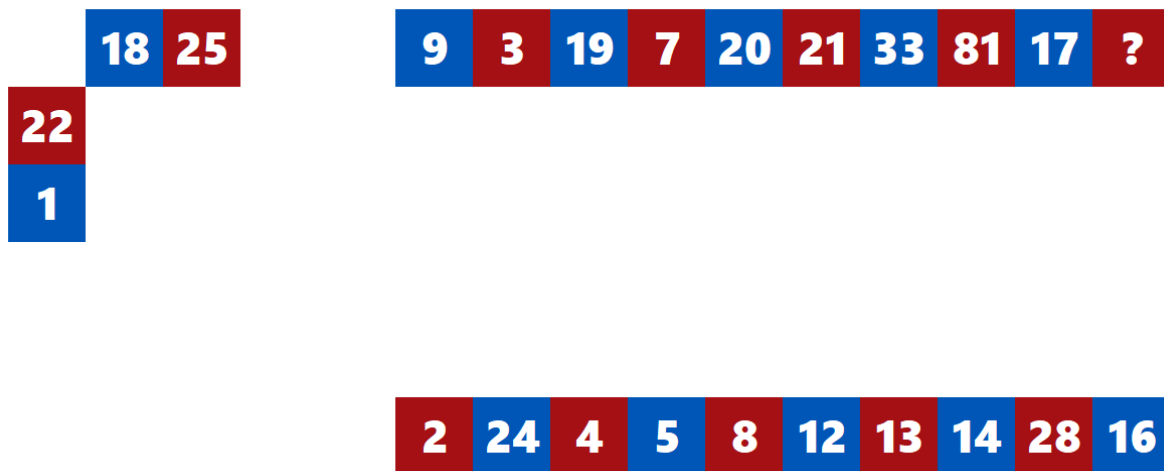
Puzzle 8: A LESS ORGANISED PUZZLE [5 points]

*Contributed by **Andy Knott** and **Sam Knott***

Unfortunately, the answers to the 14 clues below have got jumbled up in the grid – can you find them?

What is the significance of the seven remaining cells?

M	6	5	2	7	8	2	V	A	R
1	1	8	2	3	6	4	2	P	R
0	4	3	3	2	C	G	N	2	A
1	C	G	8	S	O	M	O	8	1
8	2	P	C	G	U	S	C	4	4
4	2	7	3	3	P	R	A	C	G
A	P	G	C	2	1	9	2	3	P
R	P	2	4	0	3	8	A	P	8
A	5	9	C	3	3	9	R	1	8
1	M	P	G	8	7	4	0	1	M

- Abigail, Alexander, Amos, and Angelina (for example)

- Boxing day result?

- Cryptographic algorithm of VR and PB

- Dark comedy, or a top-20 single from 1993

- Minaj / Drake collaboration

- Moniker shared by a mob boss and a carver of fowl

- Peter's depiction of a fallen angel

- Post-war explosion

- Recent shoegaze drop styled in orange and black

- Song whose opening words start with the letters ICHSISFFYHLN

- Triple-gunner that did well

- Two ahead, one behind

- Uncommon shogi opening, or BCWH's invention

- Wonderful singing, dancing, and romancing – 70 years ago

Puzzle 9: TALL STICK FIGURES [4 points]

*By **Tim Paulden***

Identify the following from the clues. (The number of letters in each answer is shown in brackets.)

- Codename of double-agent RG, or 50% of a 1980s character (4)

- First name of a fictional detective who debuted in September 1894 (6)

- 2012 house single from a Dutch DJ, featuring an Australian vocalist (6)

- Satirical magazine edited by a Lemon in 1850 and a Bird in 1950 (5)

- Song #1 by Regina, recorded on Christmas Day (6)

- One who went for a festive trot in the 19th century (3,6)

- Last word in the title of Hardy's story featuring ST, RT, and SH (4)

- Cricketer who memorably scored 277 in 1993 (4)

How are the eight solutions connected, and what two-word name (of a related kind) is revealed by them – or more specifically, by their associated numbers?

Can you explain the puzzle title?

Puzzle 10: LEFTOVER SOUP [4 points]

*Contributed by **Benedict Howell** and **Susannah Williams***

Identify a set of related terms from the images below:

R   Y   M   (4, 6)

G   E   D   N   (6, 4)

A   I   (10)

O   U   (6, 4)
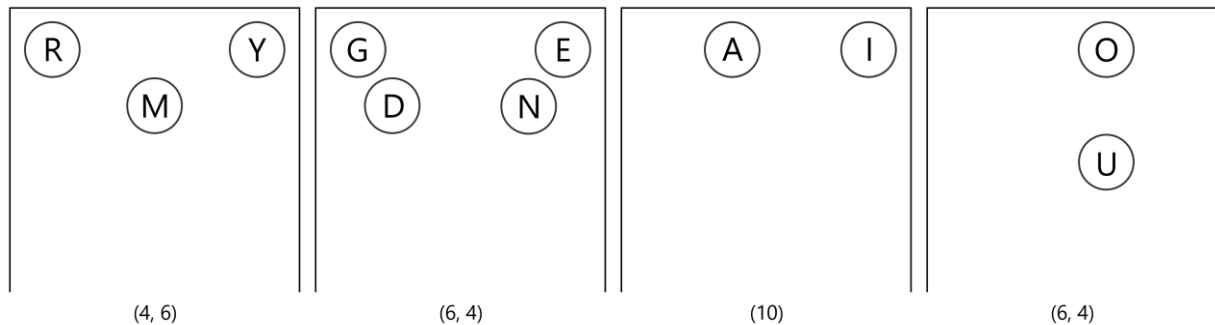
Which of the above has a festive alias, and what single change would transform it into another festive entity?

Puzzle 11: NUMBER CRUNCHING [3 points]

*Contributed by **Andy Knott** and **Sam Knott***

Identify the missing numbers in each of the following collections. One of them is elementary, one is a golden oldie, and one is half and half.

a) 2, 4, 4, ■, 6, 10, 13, 23, 24, ■, 27, 99, ■

b) 47, ■, 26, 80, 19, ■, 82, 51, 74

c) 9, ■, 11, 16, 40, 100, 22, 20, 100, 22, 50, 100, ■, 100, 25, 100, 100

[Note: In one instance, ■ stands for two values.]

Puzzle 12: A DAY AT THE RACES [4 points]

*By **Tim Paulden***

Decipher the red and blue diagram below to reveal the name of a 1930s film, whose poster features two people wearing red and blue (accompanied by three animals).

In June 2023, whereabouts did the same name defeat a comic book character who also wears red and blue?

Finally, how is the name closely connected to an earlier puzzle?
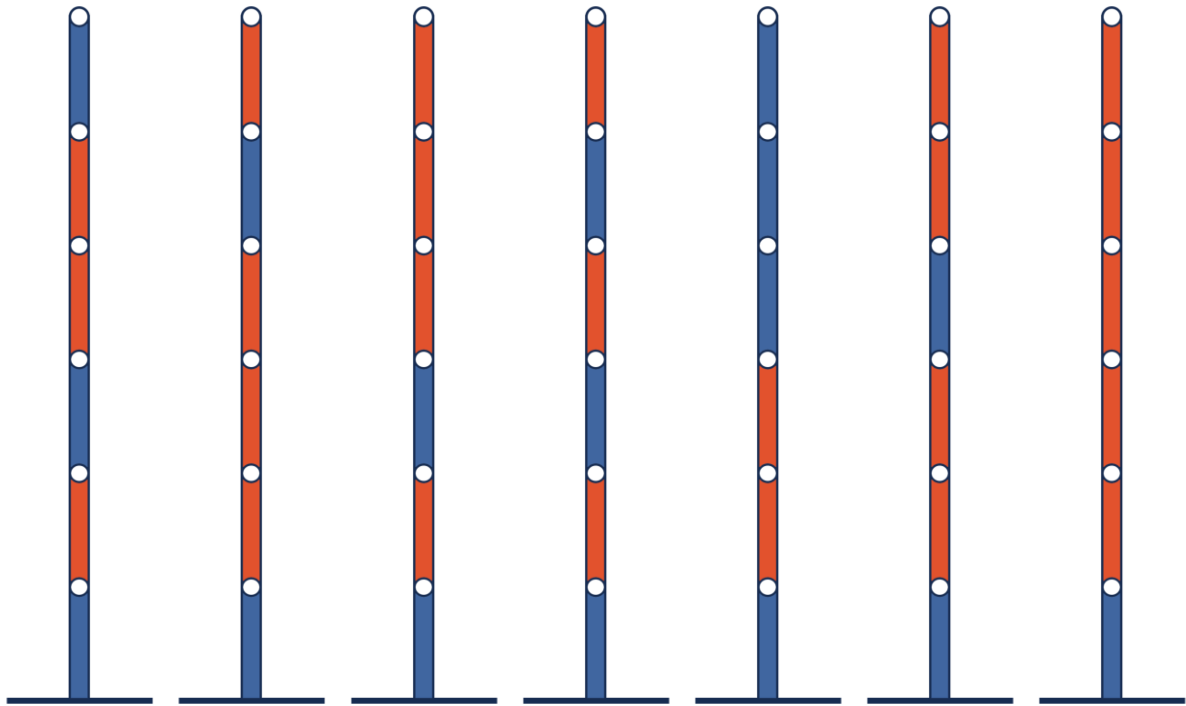
Puzzle 13: THE KING'S SPEECH (2023) [4 points]

*Contributed by **Benedict Howell** and **Susannah Williams***

Solve and fully explain:

$$T – S – P – A – E – Y = ?$$

Two-digit titular number
Stamp value in cents
Product of the lengths of M & F's names
Approximate length in minutes (unabridged)
Empty places
Years since prequel announced (for five times as many)

Puzzle 14: LET'S DO BRUNCH [3 points]

*Contributed by **Stephen Senn***

Identify the following:
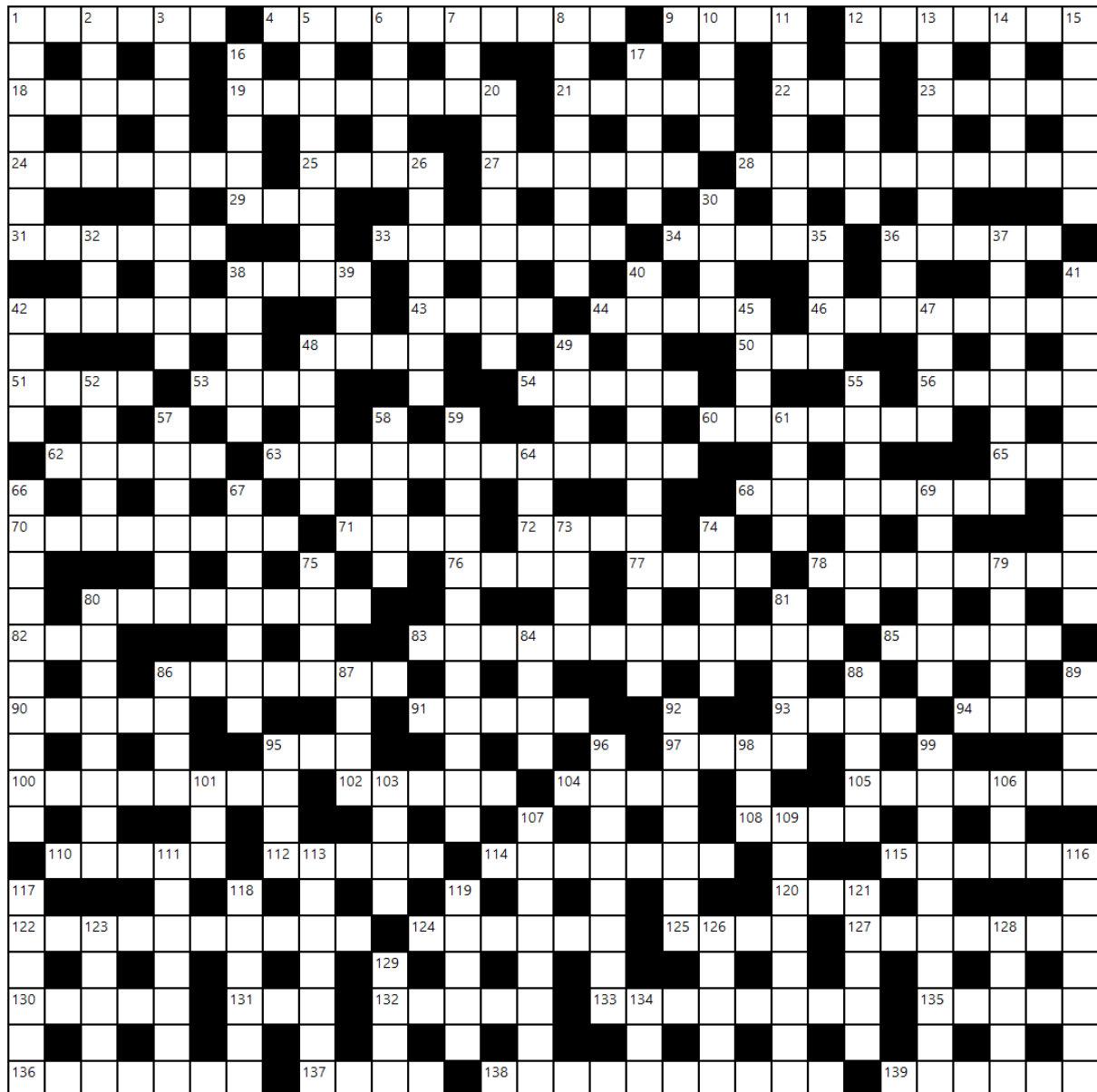
a) *Northwestern Insomnia* (for example)
b) The home of fundamentalist mathematicians
c) Indicative molecules
d) Something that connects rats, humans, cows, and badgers

Reflect and explain how they are related to a CD.

Puzzle 15: THIRTY SQUARED FOR SMART FELLOW? [15 points]

*Contributed by **Jon Nelson***

Complete the crossword. Who is referenced in the hidden message?

Across

1. Seconds away from needing a drink, given this anniversary's number (6)
4, 48a. A lot of press about Old Testament: engaging dissertation introduces saint making statistical method (10,4)
9. PM's perfect place (4)
12. 5 in St Davids family frequently seen in late October (7)
18. Round bird? (5)

19. Interminably devalue rates to get a result (8)

21. See 69

22. …bar one disheartened Norwegian (3)

23. Premiere time-saving graphical frontend for finding errors in code (5)

24. Alumni tire men retained after retirement, such as these? (7)

25. Way to make dough over the phone is a must (4)

27. Apply switch to horse leading Epsom at the start (6)

28. Plausibly Ruth, Esther, Daniel et al interlink in a reasonable way (10)

29. Service that protects odd fabric (1,1,1)

31. Game sent in pieces to be assembled (6)

33. Confound them – *Les képis!* (7)

34. The First Lady of Books & Experience (5)

36. Europeans recently won this cup at cycling place in Northern Ireland (5)

38. Woman quartered in Sevastopol garrison (4)

42. Y-fronts of young trendsetter tucked right into upper midriff (7)

43. Parts of play or book (4)

44. Concerning the neighbourhood about inside joke's response (5)

46. A remarkable group of statistical programmers located in SW England (8)

48. See 4

50. Ship made from planed wood (3)

51. Instrument reminiscent of Dahlia's roots (4)

53. Language of big boy (4)

54. Old statistician's great – round figure, rather than posh (5)

56. Part time worker (zero rate) (5)

60. Guarantees Ure found here (7)

62. Period of revolution (5)

63. Bill member of the Cabinet 25% off fee – that's what they do! (12)

65. List doesn't include train terminal or meadowland (3)

68. Feign spark – not the first time! (8)

70. Student previously waited to be seen (8)

71. Ring student in a state… (4)

72. … girl is in a state? Quite the opposite! (4)

76. Green border is not hard border (4)

77. Work out bimonthly, even (4)

78. Forebear of truly legendary figure – that's not my subject (8)

80. Advertisement in France said, "Limitless female partners, increasing constantly" (8)

82. Half of 31, or that order of magnitude (3)

83. Coronation of King Henry I, by mountaintop and between chattering trees (12)

85. Cleric returns bearing cocktail, like pornstar? (5)

86. Leonardo Di Caprio's debut in audiovisual production (2,5)

90. Sounds like mathematician is one well fuelled? (5)

91. Nothing in time is weak (5)

93. Reportedly confuse statisticians Nick & Besse (4)

94. Eschewing ML, reconstructed Samuel, a Biblical character (4)

95. Character times themselves for a test (3)

97. Leisure facility (4)

100. Musical notes sung by person vehemently at the denouement – perhaps a hatred of *The Holly & The Ivy?* (8)

102. Increase figure (5)

104. Colour blue (crustacean extract) (4)
105. Mineral from Montreal: garnet (7)
108. Dec's antecedent, a former star (4)
110. First to cross Réunion the small island (5)
112. Low point of past career: stealing documents from the East (5)
114. Investigation unchanged should leading Spaniard be substituted for Italian (7)
115. Clear 60% of 135, okay? (4,2)
120. Headless tiller on nightmarish street (3)
122. Propriety die off for Connecticut, a result that was anticipated (10)
124. The usual distribution (6)
125. Luminescent element the same when not on (4)
127. Nelson severely criticises one Christian leader about faith (7)
130, 137. Nominee of 106 128, first lady to have papers for a GAN (5,4)
131. Units of space arising from partitions of ANOVA (3)
132. Perhaps Harris went after model (5)
133. Annual drink of alcohol with Formby's accompaniment, as per Spooner (8)
135. Outside billboard illuminated on reflection of the moon on the sea (5)
136. Well rich out west, beyond Holyhead (7)
137. See 130
138. "Be I or he perhaps not the first to…": Mary Holmes's catchphrase (10)
139. *Observer* cover piece (6)

Down
1. Inflict agony on fellows, dons – wrong! (7)
2. Fill Nelson's navy – no hands! (5)
3. Time to stop one irritating condition surpassing one painful condition (10)
5. Hunger for limitless profits after yields start (8)
6. Egg reportedly belonging to Noel (5)
7, 48d. Drink too much rum from start of holiday to its end (3,5)
8. Outcome of 80 down done well – in a sense, success at last! (8)
10. Welsh author left and owned up (4)
11. NHL Hall of Fame Builder working under Diamond & Young (7)
12. Attentively think about bloody uprising under president's lead (6)
13. Chastity typically limits following fashion, to a point (7)
14. Rations of lamblike Babylonian (5)
15. Old Master from Spain found under an upturned Toyota near here (6)
16. Shoots coming up in Georgia but not in Gotham (5)
17. Take away sign in America (5)
20. It's up to the limit, buddy – here's the expected damage (8)
26. Conclusion of 122 122 (3,4)
30. Iris & co (Ray, Earl & Ace) (4)
32. Style retrospective is negative (3)
35. Halifax's emphasis: to demand charge (4)
36. Eccentric spirit (3)
37. Result of bagging several models (8)
38. End of Olympian characters (5)
39. Previously a raised weapon (3)
40. Entreats too wildly to have sex with former lover gone – could have understood the signs with this (7,5)

41. Running off, glutton hides roast beef dish (10)
42. Hairy creature, it easily bounds when climbing (4)
45. A swallowtail, found in log and grass (4)
47. Puts away last of the salsa that remains (4)
48. See 7
49. The right number here (4)
52. Hides from angry evangelists after besting top preacher with statistics (5)
55. Economy leader's gone, accepting defeat for a bit of dough (7)
57. Ruddy woman – clear off! (6)
58. Enemy of state effective without ID (5)
59. Infrequently, philosopher (31) disrobed partner (12)
61. Sketch uniform distributions' tail as prior (4)
64. Abruptly get something from tree (4)
66. Chambers to try to woo men about to be married, topless (10)
67. Overstimulated Romeo is fine around Christmas (7)
69, 21. Nominee of 106 128, an entitled Zimbabwean premier (6,5)
73. Can raise (4)
74. Essence of insight: Mike's a character (5)
75. Aga Khan evokes fragments in recollection (4)
79. Levels of odds after they're increased (5)
80. Examination of manicured nails, say (8)
81. Design zero-gravity complex in a supercilious manner (5)
84. Aid at arm's length (4)
86. Cover up striking a dope (4)
87. Rack for food or short game (4)
88. One that provides water but not books is a monster (5)
89. Sound of comfortable ragdoll (4)
92. Small thing, free of charge (7)
95. A colour yellow normally mixes (as primaries) (4)
96. Cult a lay organisation, really (8)
98. Ray's provenance (3)
99. Obeisance to Peter, Paul & Mary, perhaps? (10)
101. So far, Bigfoot avoids Nelson (3)
103. Tesla, Newton or Pascal, perhaps (4)
106. Idol who was so hot nearly two months ago (3)
107. Cast in a mould with one peak (8)
109. Shut in Scooby – or outside, with unrestricted access (4,4)
111. Obscure place to rest in vault? (7)
113. Maker of suspect accounts (7)
116. Engulfed in alcohol or vinegar (7)
117. Wail from copper joint scraping top against American object (6)
118. Harare lyricist penned infrequently (6)
119. End of the biscuits after nominee for 106 128 finds packs (5)
121. Redolence one left for us when presently getting sustenance from Angus (5)
123. Expression of constitution of Daddy Bear (5)
126. Experience remorse after decapitating bird (5)
128. Lead masthead melted to make award (5)
129. Small items confined here in perpetuity (4)
134. Expression of Mann & Whitney's test sheep? (3)

Puzzle 16: WORLD RECORDS [5 points]

*Contributed by **Jonny White** and **Jake Barrett***

The list below represents ten places where people have regularly obtained records, with a certain product being involved in each case. Finding them all may require a coordinated effort!

3676.14 (*city,* USA) → **Kingston, Canada (1984)**
2697.88 (*city,* USA) → **Pacific Northwest, USA (2015)**
3008.10 (*city,* USA) → **Toronto, Canada (2018)**
3001.48 (*city,* USA) → **Estonia (1999)**
3012.24 (*city,* USA) → **Berlin, Germany (1981)**
3512.14 (*city,* USA) → **London, UK (1973)**
1098.76 (São Paulo, Brazil) → **North Carolina, USA (2008)**
2100.22 (*city, country*) → **Ohio, USA (2001)**
4043.62 (*city,* USA) → **Glasgow, UK (2016)**
3789.69 (Shanghai, China) → **New Orleans, USA (1987)**

Identify the memorable collaboration that links all ten locations underlined above (noting that one of the cities represents a neighbouring pair).

[Hint: One man spins around a pole (0:15); another jumps down from a height (0:41).]

What vessel is revealed when the ten associated items on the right are reordered as clued below – and how is the person associated with the third item naturally connected?

[late opener, wireless music, mathematical date, HHH's birth, twelve mazes, puzzling girl, canine commands, popular move, nuclear power, climatic stage]

Lastly, seven other locations (one city, four countries, and two continents) were also in with a shout of inclusion at the start – it's time to celebrate if you can explain why!

Puzzle 17: CHRISTMAS FILMS – AN ABRIDGED LIST [5 points]

*Contributed by **Patrick Gildersleve***

Professor Chris Goldbach was snowed under with his job last Christmas. To stay connected to his roots, he watched traditional Christmas films at various points, with only one reason for one film to link to the next.

Cast a glance at the films below, and list them in a suitable viewing order (including the three repeat viewings) – noting that two films in the schedule have already been filled in for you. Be sure to put in the effort to obtain extra credit!

**Bad Santa 2 (2016); Blizzard (2003); Call Me Claus (2001);
Deck the Halls (2006); Die Hard (1988);
Flight of the Reindeer (2000); Four Christmases (2008); Fred Claus (2007);
Home Alone (1990); Home Alone 3 (1997);
It's a Very Merry Muppet Christmas Movie (2002); Love Actually (2003);
Miracle on 34th Street (1994); Scrooge & Marley (2012);
The Guardians of the Galaxy: Holiday Special (2022)**

1)		10)	
2)		11)	
3)	Call Me Claus	12)	
4)		13)	
5)		14)	
6)		15)	
7)	Miracle on 34th Street	16)	
8)		17)	
9)		18)	

(Given the theme, in what sense is the final film a fitting choice?)

Along the same lines, find how each one is famously separated from the first self-styled star, whose initials echo the name of the problem above. (Don't limit yourself to these specific projections – and extra knowledge, beyond that of a standard oracle, is not expected.)

[Hint: Excluding repeats and missing values, you should finish up with 13 numbers that sum to 22.]

Puzzle 18: IN THE BEGINNING WAS THE... [5 points]

*Contributed by **Andrew Garratt***

The grid below captures a 279-item sequence and a 28-item sequence which led to the longer one, initially. The underlined letter is an outlier (why?) and does double duty.

What can be found in the cells belonging to neither sequence?

The coloured groups of three and five cells lead to something of interest to statisticians. What would that be, in terms of this puzzle?

Along similar lines, what relevant name is revealed by the partners of the ten boxed cells?

While the grid is mysterious, the setter hopes you can unravel it!

```
R  T  I  T  P  A  A  B  B  O  I  C  W  U  T  I  M  T  A  T  H  T  O  B
P  B  F  L  H  M  D  G  C  L  P  J  B  N  P  P  T  E  L  Y  O  H  F  W
B  C  B  G  E  C  P  L  W  V  B  K  F  F  M  C  T  W  D  H  V  C  M  T
E  J  G  P  C  C  G  A  V  G  M  P  B  E  L  E  P  P  W  S  P  S  L  T
R  C  Z  H  D  I  A  2  B  A  J  B  L  T  B  C  T  P  Z  H  A  W  E  R
S  I  P  W  R  R  G  I  O  F  S  S  R  B  F  V  R  W  W  T  H  S  L  C
D  D  H  R  H  E  H  4  P  F  S  E  B  C  S  T  M  C  C  T  C  P  L  B
H  D  S  R  W  R  P  I  T  D  C  H  O  C  L  T  F  M  I  R  A  P  G  S
L  J  F  H  F  E  M  P  S  C  C  S  A  T  C  I  C  L  S  F  C  G  M  C
M  S  B  2  P  H  S  M  P  E  O  S  E  M  V  P  C  A  S  B  V  F  L  C
C  M  D  C  H  F  V  B  G  P  B  H  R  E  L  A  C  E  C  R  S  C  G  L
P  R  R  E  C  P  G  T  B  C  C  M  S  S  N  N  A  G  T  R  C  M  S  B
C  W  P  T  P  I  G  C  C  V  P  P  C  M  D  D  C  L  I  D  P  M  C  S
```