

Ritangle 2018

Final Challenge

Inspired by the television show *Only Connect*.

Submitting your answers

It is not expected that every team (or even any team) will find correct answers to all of the questions in the final challenge. You will have to decide when to submit a (possibly incomplete) set of answers. There is no limit to the number of times a team does this and there are no penalties for multiple attempts.

Answers should be entered [here](#) exactly as specified in this document.

The first team to submit correct answers, to the satisfaction of the judges, to all parts of the final challenge will be the winner. If no team makes a submission with correct answers to all parts of the final challenge by 0900 on Wednesday 12th December then the team that scores most highly on the final challenge, with scoring to be decided by the judges and to the satisfaction of the judges, will be declared the winner. If there is a tie then the team which submitted the answers which gave the tied score first will be declared the winner, subject to the satisfaction of the judges.

More details can be found at [here](#).

The Clues

First go [here](#) and input your answers to the first 25 questions again. You will find this now gives you access to additional clues.

Each clue appears more than once among the documents you can get access to, so if you have missed out a question or two, you can still collect all the clues. You will need the clues to interpret the questions in Rounds 1 – 5 of the final challenge below.

It is not essential to have every single clue (but it helps!)

Note that some clues include the colour red (these are clues 10, 17, 36, 57, 82 and 85).

We may release further hints each day at 9am, regardless of whether we have a winner by then or not.

Round 1: What connects?

There is a simple connection between each set of objects, as described in the clues, in Q1a, Q1b and Q1c

Find the appropriate value of k each time.

Q1a

75-47-58-76-48-58-75-77-58-37-48-58-75-76-58-47-48-58-75-1-58-66-48-58-75-20-58-11-48

Your final answer to input for Q1a is your value for k .

Q1b

38-58-49-87-67-58-21-87-12-58-59-87-74-58-2

Multiply k by 10^4 and take the integer part. This is your final answer to input for Q1b

Q1c

80-32-60-87-80-3-13-60-87-80-50-39-60-87-80-93-22-60

Multiply k by 10. This is the final answer to input for Q1c.

Round 2: Sequences

What comes next in the sequences in Q2a, Q2b and Q2c?

Each sequence is constructed via a simple rule.

Give the appropriate value of k each time. This is what you must input in each case.

Q2a

14-14-40-78-4-68-51-33-2

Q2b

40-40-11-47-23-61-41-2

Q2c

42-31-15-69-24-5-73-62

Hint for **c.** is 96.

Round 3: The Wall

Q3a

Convert these clues into words, and arrange them into four groups of four, where each quartet falls within a simple definition.

27 64 81 86

35 44 7 28

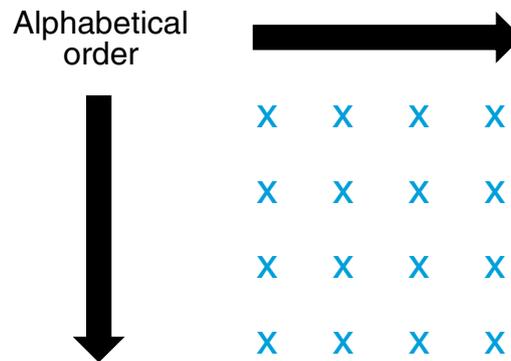
88 70 53 9

94 100 99 79

If you think one of the correct quartets is David, Alan, Bob, Colin then write it down like as below, with the elements in alphabetical order (notice that this is case-sensitive)

AlanBobColinDavid

Write your four quartets down using the format below; so the four rows are in alphabetical order down the page too.



The first row in the above is the answer to input to Q3a1, the second row is the answer to input to Q3a2, the third row is the answer to input to Q3a3 and the fourth row is the answer to input to Q3a4.

Q3b

Convert these clues into numbers, and arrange them into four groups of four, where each quartet can be described by a simple one-word adjective.

11 51 89 91

25 97 34 63

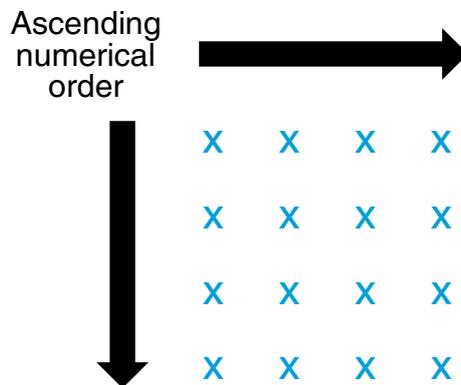
16 43 83 6

52 26 98 84

If you think 44, 33, 22, 11 is a quartet, write this in ascending order as

11223344

Write your four quartets using the format below;



The first row in the above is the answer to input to Q3b1, the second row is the answer to input to Q3b2, the third row is the answer to input to Q3b3 and the fourth row is the answer to input to Q3b4.

Round 4: The Missing Elements

In Q4a and Q4b some sums have had their even digits replaced with a dash.

Q4a

18-56-71

Q4b

54-56-8

On the answer form for Q4a and Q4b, input the missing digits as a string from left to right each in each case (no spaces)

In Q4c, Q4d, Q4e and Q4f, collections of letters have had the letters *a*, *e*, *i*, *o*, *u* and *t* (and spaces) removed. What should they say?

Q4c

45

Q4d

72

Q4e

29

Q4f

55

Input the whole phrase in entirely lower-case letters without spaces in each case.

Round 5: The Crossnumber

You have to work out what goes on here; all you get is the remaining clues and the dimensions of the grid!

No number begins with a zero.

Q5a

Once completed, input the first row of the above as the answer to Q5a, entering 'f' (lower case) for a filled in square, otherwise a digit 0-9.

Q5b

Once completed, input the second row of the above as the answer to Q5b, entering 'f' (lower case) for a filled in square, otherwise a digit 0-9.

Q5c

Once completed, input the third row of the above as the answer to Q5c, entering 'f' (lower case) for a filled in square, otherwise a digit 0-9.

Q5d

Once completed, input the fourth row of the above as the answer to Q5d, entering 'f' (lower case) for a filled in square, otherwise a digit 0-9.

Q5e

Once completed, input the fifth row of the above as the answer to Q5e, entering 'f' (lower case) for a filled in square, otherwise a digit 0-9.