8ullfrog 8ingo

Tip: We recommend marking bingo calls on your bingo board. If the bullfrog's call is ambiguous, you only get to
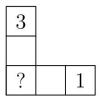mark one of the numbers – choose wisely!

Bullfrog Bingo Solutions
First, we need to fill in the grid with the numbers 1 through 25. The key strategy is to create L-shape patterns
with a single gap. For example, in the L-shaped region below, we can see that the square labeled with a ? must be
filled with 2.

3	
?	1

Using this strategy and a bit of quick thinking, we can fill in the rest of the grid as shown below.

22	21	7	6	23
14	3	15	5	4
12	11	25	10	24
13	2	16	1	17
19	20	8	9	18

Now that the board is complete, we will go through each clue and list the numbers that could be used by that clue. The numbers appear in red below.

1. 52 (25)
2. A number with 8 positive divisors (24)
3. The largest prime in the grid (23)
4. The hypotenuse of a right triangle with leg lengths of 8 and 15 (17)
5. A number whose proper divisors add up to itself (6)
6. A prime number that is one less than a power of two (3 or 7)
7. A 2-digit number whose digits, when reversed, form a perfect square (18)
8. The Roman X (10)
9. An odd number greater than 1 with an odd number of divisors (9 or 25)
10. A multiple of 5 (5, 10, 15, 20, or 25)

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11. A Fibonacci number greater than 1 (2, 3, 5, 8, 13, or 21)

12. A number that can be written as a sum of two not necessarily distinct primes in exactly 2 ways, where order doesn't matter (2 + 3 counts the same as 3 + 2) (10, 14, 16, 18, or 20)

Now we need to figure out how we could have made a bingo using these calls. First, we'll fill in the cells for all the calls with only one option.

22	21	7	6	23
14	3	15	5	4
12	11	25	10	24
13	2	16	1	17
19	20	8	9	18

To finish the puzzle, we need to pick one number from each of the remaining clues (6, 9, 10, 11, and 12) to fill in so that we get a bingo. Unfortunately, none of those clues contain 4, 11, or 12, so we won't be able to finish any of the lines that are almost filled in. However, we can fill in the whole middle column.

22	21	7	6	23
14	3	15	5	4
12	11	25	10	24
13	2	16	1	17
19	20	8	9	18

So, we can get a bingo in the middle column.