

CrossFigure - Hard Puzzle #31

This puzzle is like a crossword, but with numbers. Each digit occupies a square and can be a part of a "word" in the across and down directions.

Rules:

1. "Words" may not start with a zero.
2. "Words" read from left to right and top to bottom.
3. There is one unique solution which satisfies all the clues given below.
4. Some "words" may not have clues. They will be determined by the "words" which intersect them.

| | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | | | 3 | | 4 | 5 | | 6 | | | 7 | 8 |
| 9 | | 10 | 11 | | | 12 | | | 13 | 14 | 15 | | |
| 16 | | | | | | 17 | | | | 18 | | | |
| 19 | | | | | | 20 | | | | | | 21 | |
| | | | 22 | 23 | | | | 24 | 25 | | | | |
| | 26 | | | | | 27 | 28 | | 29 | | | 30 | |
| 31 | | | | | 32 | | | 33 | | | | 34 | 35 |
| 36 | | | | | 37 | | | | | | | 38 | |
| | 39 | | 40 | 41 | | 42 | | | 43 | 44 | | | |
| 45 | | | 46 | | | | | 47 | | | | 48 | |
| 49 | 50 | | | | | 51 | 52 | | | | | 53 | |
| 54 | | 55 | | | | 56 | | | | 57 | 58 | | |
| 59 | | | | 60 | | 61 | | | 62 | | | | |
| 63 | | | | | | 64 | | | | | | 65 | |

Across

- 1 36 across plus 64 across
- 4 26 across divided by 15 down
- 7 Mean of 65 across and 1 across
- 9 Nineteen thousand two hundred forty-nine less than 59 across
- 12 19 across minus half of 3 down
- 13 Twice the result of 62 across minus 42 across
- 16 29 across plus 15 down
- 17 3 down plus 56 across
- 18 Mean of 53 down and 7 across
- 19 Mean of 41 down and 46 across
- 20 Mean of 31 across and 3 down
- 21 15 down minus 43 down
- 22 Five times a prime number
- 24 A square
- 26 61 across plus half of 26 down
- 27 Same as 63 across
- 29 Half of 48 down, then subtract 40 down
- 31 43 down plus 55 down
- 32 2 down plus 3 down
- 34 A square
- 36 Mean of 34 across and 15 down
- 37 Six hundred seventy-three less than 27 down
- 38 Mean of 12 across and 53 across
- 39 16 across minus half of 47 across
- 42 4 down divided by 23 down
- 43 8 down divided by 21 across
- 46 30 down divided by 64 across
- 47 53 down divided by 32 down
- 49 24 across divided by 51 across
- 51 Mean of 3 down and 4 across
- 53 61 across minus 23 down
- 54 Mean of 37 across and 38 across
- 56 11 down divided by 32 across
- 57 Half of 52 down, then subtract 22 across
- 59 First two digits are the same as 1 across
- 61 53 across plus 49 across
- 62 Six thousand seven hundred sixty less than 14 down
- 63 17 across plus 34 across
- 64 A square
- 65 46 across minus 63 across

Down

- 1 59 across plus half of 7 down
- 2 50 down minus 10 down
- 3 25 down minus 31 down
- 4 49 across times 42 across
- 5 First two digits are the same as 15 down
- 6 19 across minus 4 across
- 7 Ninety-seven times 65 across
- 8 Two thousand eight hundred eighteen more than 40 down
- 10 A square
- 11 Thirty-three times a prime number
- 14 A prime number
- 15 Mean of 41 down and 31 across
- 23 35 down minus 58 down
- 25 Twice the result of 60 down plus 4 across
- 26 Six times a prime number
- 27 Three times a prime number
- 28 Rearranged digits of 32 across
- 30 Eighty-one times 38 across
- 31 4 down divided by 36 across
- 32 34 across minus 62 down
- 33 A square
- 35 Twice the result of 27 across minus 34 across
- 40 Twenty-six times a prime number
- 41 49 across minus 60 down
- 43 Mean of 10 down and 62 down
- 44 One hundred twenty-seven more than 62 across
- 45 62 down plus half of 44 down
- 48 Fourteen thousand eight hundred seventy-five more than 59 across
- 50 Twenty-four times a prime number
- 51 Seven times a prime number
- 52 Four times a prime number
- 53 One thousand seven hundred thirty-four less than 7 down
- 55 Mean of 43 down and 53 across
- 58 5 down divided by 6 down
- 60 27 across minus 38 across
- 62 Mean of 51 across and 4 across

Solution:

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 2 | | | 1 | | 2 | 4 | | 7 | | | 8 | 4 |
| 6 | 3 | 2 | 7 | 2 | | 9 | 3 | | 5 | 3 | 4 | 3 | 4 |
| 6 | 9 | 5 | 9 | | | 4 | 5 | | | 3 | 3 | 4 | 6 |
| 9 | 9 | | 5 | | | 4 | 0 | | | 5 | | 2 | 0 |
| 2 | | | 6 | 3 | 5 | | | 5 | 7 | 6 | | | 0 |
| | 1 | 0 | 3 | 2 | | 9 | 4 | | 6 | 9 | 1 | 6 | |
| 6 | 8 | | | | 2 | 4 | 1 | 1 | | | | 4 | 9 |
| 4 | 6 | | | | 8 | 8 | 1 | 6 | | | | 8 | 0 |
| | 6 | 8 | 4 | 1 | | 9 | 2 | | 2 | 2 | 3 | 0 | |
| 1 | | | 1 | 8 | 0 | | | 2 | 3 | 6 | | | 9 |
| 3 | 2 | | 7 | | | 1 | 8 | | | 9 | | 6 | 7 |
| 4 | 4 | 4 | 8 | | | 3 | 3 | | | 3 | 5 | 6 | 3 |
| 8 | 2 | 5 | 2 | 1 | | 9 | 9 | | 2 | 6 | 8 | 0 | 9 |
| 9 | 4 | | | 4 | | 3 | 6 | | 1 | | | 8 | 6 |