OTS Magic Squares Masterclass

**Random Total Magic Square**

*This activity is taken from Numberphile:* [*http://www.numberphile.com/videos/magic\_square\_trick.html*](http://www.numberphile.com/videos/magic_square_trick.html)

Choose a total between 21 and 65: **n =** \_\_\_\_\_\_\_\_\_\_

Work out the numbers in your magic square using this:

|  |  |  |  |
| --- | --- | --- | --- |
| n-20 | 1 | 12 | 7 |
| 11 | 8 | n-21 | 2 |
| 5 | 10 | 3 | n-18 |
| 4 | n-19 | 6 | 9 |

Fill in the square for your magic total:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Why does this work?