

The Dozenal Society of America Dozenal Divisibility Tests Quick Guide

by Treisaran

| Divisor Tests |  |
| :---: | :--- |
| Divisible by | If ends in |
| 2 | $0,2,4,6,8$, or $Z$ |
| 3 | $0,3,6,9$ |
| 4 | $0,4,8$ |
| 6 | 0,6 |
| 10 | 0 |

## Two-Digit Multiples of 5

000507131821262834394247
$505557636871767 \& 84899297$
そ0 ъ5 Ъて \&3 \&8

Split, Promote, Discard (SPD)
Divisibility by 5

1. Split the last two digits off, leaving two numbers.
2. Promote the second number to the nearest multiple of 5 (add or subtract).
3. Add or subtract the same amount from the first number.
4. Discard the right number; repeat 1-3 with the left.
5. Continue until the left number is one or two digits.
6. If this number is divisible by 5 , the original is also; if not, the original is not.

| Regular Tests |  |
| :---: | :---: |
| Divisible by | If |
| 8 | Second-to-last digit divides by 2 and last is 0 or 8 Second-to-last digit doesn't divide by 2 and last is 4 |
| 9 | Second-to-last digit is 0,3 , 6 , or 9 and last is 0 or 9 Second-to-last digit is 1,4 , 7 , or $Z$ and last is 6 Second-to-last digit is 2,5 , 8 , or $\mathcal{E}$ and last is 3 . |
| 14 | Last two digits are a multiple of 14 |
| 28 | Third-last digit divides by 2 and last two are $00,28,54$, 80 , or 78 <br> Third-last digit doesn't divide by 2 and its last two are $14,40,68$, or 94 |
| Two-Digit Multiples of 14 |  |
| 001428405468809478 |  |
| Compound Tests |  |
| Divisible By | If |
| $\checkmark$ | Divisible by both 2 and 5 |
| 13 | Divisible by both 3 and 5 |

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