## Duisilility Dreams

A number is exactly divisible by:
2 If it is even (ends in $0,2,4,6,8$ ) [976].
3 If its SOD (Sum Of Digits) is divisible by 3 [546: $5+4+6=15]$.

4 If it is even and its last 2 digits $=00[300]$ or are divisible by 4 [316].

5 If it ends in 0 [230] or 5 [765].
6 If it follows rules for both 2 and 3 [462: 4+6+2 = 12].

7 If its 1 st digit/s minus twice its last digit $=0$ [147: $14-(2 \times 7)=14-14=0$ ] or is divisible by 7 [91: $9-(2 \times 1)=9-2=7]$.

* To seek 7 is futile (first minus twice last).

8 If it is even and its last 3 digits $=000[5000]$ or are divisible by 8 [3888] or twice the first two of the 3 digits plus the last is divisible by 8 [3152: $(2 \times 15)+2=30+2=32]$. * He ate(8) \& was too full (twice first plus last).

9 If its SOD (Sum Of Digits) is divisible by 9 [2754: $2+7+5+4=18]$.

10 If it ends in 0 [6370].
11 If $\operatorname{SOD}$ (odd) $-\operatorname{SOD}$ (even) $=0$
[572: $(5+2)-7=7-7=\underline{0}$
or is divisible by 11
[2816: $(2+1)-(8+6)=3-14=-11]$.
12 If it follows rules for both 4 and 3 $[924: 9+2+4=15]$.
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