

The Divisibility Rules (rules for shaded numbers must be learnt, others are optional)

Divisible by:	If:	Examples:
2	The last digit is even (0,2,4,6,8)	128 is 129 is not
3	The sum of the digits is divisible by 3	381 (3+8+1=12, and $12 \div 3 = 4$) Yes 217 (2+1+7=10, and $10 \div 3 = 3(1)$) No
4	The last 2 digits are divisible by 4	1312 is ($12 \div 4 = 3$) 7019 is not
5	The last digit is 0 or 5	175 is 809 is not
6	The number is divisible by both 2 <i>and</i> 3	114 (it is even, and $1+1+4=6$ and $6 \div 3 = 2$) Yes 308 (it is even, but $3+0+8=11$ and $11 \div 3 = 3(2)$) No
7	If you double the last digit and subtract it from the rest of the number and the answer is: 0 , or divisible by 7 (Note: you can apply this rule to that answer again if you want)	672 (Double 2 is 4, $67-4=63$, and $63 \div 7=9$) Yes 905 (Double 5 is 10, $90-10=80$, and $80 \div 7=11(3)$) No
8	The last three digits are divisible by 8	109816 ($816 \div 8=102$) Yes 216302 ($302 \div 8=37 \frac{3}{4}$) No
9	The sum of the digits is divisible by 9 (Note: you can apply this rule to that answer again if you want)	1629 ($1+6+2+9=18$, and again, $1+8=9$) Yes 2013 ($2+0+1+3=6$) No
10 (multiple of power of 10)	The number ends in 0 (has as many zeros as multiple of power of 10)	220 is 221 is not
11	If you sum every second digit and then subtract all other digits and the answer is: 0, or divisible by 11	1364 ($((3+4) - (1+6) = 0)$) Yes 3729 ($((7+9) - (3+2) = 11)$) Yes 25176 ($((5+7) - (2+1+6) = 3)$) No
12	The number is divisible by both 3 <i>and</i> 4	648 (By 3? $6+4+8=18$ and $18 \div 3=6$ Yes. By 4? $48 \div 4=12$ Yes) Yes 524 (By 3? $5+2+4=11$, $11 \div 3 = 3 \frac{2}{3}$ No. Don't need to check by 4.) No
25	The last two digits are 00, 25, 50, or 75	250 is 251 is not

