DIVISIBILITY SHORTCUTS

Is it divisible by:	Yes, if the number's...
2	last digit is an even number (0, 2, 4, 6, 8)
3	digit sum is divisible by 3 (**or** keep summing the digits until you have 3, 6, or 9)
4	last two digits are 00 or divisible by 4 (**or** if it was divisible by 2 and the answer was an even number)
5	last digit is 0 or 5
6	last digit is an even number and the digit sum is divisible by 3 (**or** if it was divisible by both 2 and 3)
8	last three digits are 000 or divisible by 8 (**or** if it was divisible by 4 and the answer was an even number)
9	digit sum is divisible by 9 (**or** keep summing the digits until you have 9)
10	last digit is 0
11	sum of digits in "even" place columns subtracted from sum of digits in "odd" place columns is 0 or divisible by 11 (**or** keep summing and subtracting this way until you have 0) e.g. 3,861 3+6=9 8+1=9 9-9=0 it is divisible by 11
12	divisible by both 3 and 4
15	divisible by both 3 and 5
18	divisible by both 2 and 9
20	last digit is 0 and the preceding digit is an even number
22	divisible by both 2 and 11
24	divisible by both 3 and 8
25	last two digits are 00, 25, 50, or 75
30	last digit is 0 and it is divisible by 3
33	divisible by both 3 and 11
36	divisible by both 4 and 9
40	divisible by both 5 and 8
44	divisible by both 4 and 11
48	divisible by both 6 and 8
50	last two digits are 00 or 50

You can extend these guidelines to even larger divisors by applying two of the tests to the number. For example, if the number is divisible by both 5 and 11, then it will be divisible by 55. But this will not work if the two numbers can be divided into each other. For example, you can not determine divisibility by 16 simply using 2 and 8 divisibility guidelines, because 2 goes into 8 evenly. Any number divisible by 8 will also be divisible by 2. You can, however, use them sequentially, so if the number is divisible by 8 and the solution is divisible by 2, then the number will be divisible by 16.
(Kelly, G. *Short-cut Math*, 1984)