Name   Date

DIVISIBILITY RULES 1-9 CHART

DIVISIBLE BY 1	DIVISIBLE BY 2	DIVISIBLE BY 3
All **integers** are divisible by 1.	All **even** numbers are divisible by 2. This means any **integer** whose last digit is 0, 2, 4, 6 or 8.	All **integers** where the total of the digits is divisible by 3 (in the 3 times table). This rule can be repeated if needed.
147 **is divisible** by 1 because it is a whole number. 2059 **is divisible** by 1 because it is a whole number. 12.8 **is not divisible** by 1 because it is not an integer.	318 **is divisible** by 2 because the last digit is 8. 8÷2=4 (divisible) 513 **is not divisible** by 2 because 3÷2=1 ½ (not divisible).	714 **is divisible** by 3 because 7+1+4=12 and 12÷3=4 (divisible). 3515 **is not divisible** by 3 because 3+5+1+5=14. Repeat the rule: 1+4=5. Not divisible by 3.

DIVISIBLE BY 4	DIVISIBLE BY 5	DIVISIBLE BY 6
All **even** integers whose last two digits are divisible by 4. *A quick way to test this is to halve the last two digits twice and see if you get a whole number.*	All **integers** whose last digit is a 0 or 5.	All **even** integers which are divisible by 3 (see Divisible by 3 rule).
1328 **is divisible** by 4 because 28÷4=7. 793 **is not divisible** by 4 because it is odd. *870 is not divisible by 4 because half of 70=35 and half of 35=17 ½ (not a whole number)*	4185 **is divisible** by 5 because the last digit is 5. 319 **is not divisible** by 5 because the last digit is 9.	432 **is divisible** by 3 because it is even and the total of the digits is 4+3+2=9 and 9÷3=3 (divisible). 158 **is not divisible** by 3 because 1+5+8=14 and 14÷3=4 $^2/_3$ (not divisible).

DIVISIBLE BY 7	DIVISIBLE BY 8	DIVISIBLE BY 9
Double the last digit and subtract the result from the number made by the other digits and see if it is divisible by 7. Repeat again if needed.	All **even** integers where the last 3 digits are divisible by 8. *A quick way to test this is to halve the last 3 digits three times and see if you get a whole number.*	All **integers** where the total of the digits is divisible by 9 (in the 9 times tables). This rule can be repeated if needed.
1057 **is divisible** by 7 because 105-2x7=91. 91÷7=13 (divisible). 841 **is not divisible** by 7 because 84–2x1=82. 82÷7=11 $^5/_7$ (not divisible).	5312 **is divisible** by 8 because 312÷8=39. 1207 **is not divisible** by 8 because it is odd. *4284 is not divisible by 8 because half of 284=142 and half of 142 is 71 and half of 71 is 35 ½ (not a whole number)*	2745 **is divisible** by 9 because 2+7+4+5=18. Yes - divisible by 9. 1024 **is not divisible** by 9 because 1+0+2+4=7 which is not divisible by 9.

An **integer** is whole number which can be positive or negative.

0 is **divisible** by any number except itself.