Name: _____ Period: _____

Divisibility Worksheet

Number	Digit Sum	2	3	4	5	6	8	9	10	Number Divisible by:
1248	1 + 2 + 4 + 8 = 15	√	√	√		√				2, 3, 4, and 6
15										
16										
27										
28										
36										
57										
70										
75										
91										
93										
102										
144										
150										
168										
195										
225										
256										
268										
316										
450										
549										
1470										
4518										
7120										

Divisibility Rules

2 - The last digit will be 0, 2, 4, 6, 8

3 - The sum of the digits is a multiple of 3 (3654…3 + 6 + 5 + 4 = 18 (18 ÷ 3 = 6))

4 - The last two digits are a multiple of 4 (123**64**….64 ÷ 4=16)

5 - The last digit will be 0 or 5

6 - The number is divisible by **BOTH** 2 & 3

8 - The last three digits are divisible by 8

10 -The last digit will be 0

12 - The number is divisible by **BOTH** 3 & 4

15 - The number is divisible by **BOTH** 3 & 5

Determine if the numbers below are divisible by 2, 3, 4, 5, 6, 7, 8, 9, 10. Justify your answer and show your work.

Example: 148

1. **Divisible by 2 since the last digit is even.**
2. **Not divisible by 3 since the sum (1 + 4 + 8 = 13) of the three digits is NOT divisible by 3.**
3. **Divisible by 4 since the last two digits are divisible by 4.**
4. **Not divisible by 5 since the last digit does NOT end in 0 or 5.**
5. **Not divisible by 6 since it is NOT divisible both by 2 and 3.**
6. **Not divisible by 7 since 8(1) + 4(2) + 1(3) = 19 and 6 is NOT divisible by 7.**
7. **Not divisible by 8 since last three digits are NOT divisible by 8.**
8. **Not divisible by 9 since the sum (1 + 4 + 8 = 13) of the three digits is NOT divisible by 9.**
9. **Not divisible by 10 since last digit is NOT zero.**

---

1. 447

2. 7168