Name_____ Per _____

Mrs. Doolan/Math6

Divisibility Rules

**Divisibility – Can be divided by another number without a remainder.

Example: 21 is divisible by 3 (21 ÷ 3 = 7)
21 is NOT divisible by 4 (21 ÷ 4 = 5 R1 or 5 ¼)

Divisibility Rules:

A whole # is divisible by:	IF:	Examples:
2	The number ends in a 2, 4, 6, 8, or 0	20, 346, 7,598
3	The sum of the digits makes a # divisible by 3	#1: 18 = 1+8 = 9÷3 = 3 ✓ #2: 177= 1+7+7 = 15÷3 = 3 ✓ #3: 2,952=2+9+5+2= 18÷3=6 ✓
4	if the last two digits form a number divisible by 4	28, 332, 772, 9,304
5	if the ones digit is 0 or 5	485, 2,570
6	if the number is divisible by both 2 and 3	18, 24, 756, 6,720
8	if the last three digits form a number divisible by 8	128, 1,256, 6,408
9	if the sum of the digits is divisible by 9	#1: 18 = 1+8 = 9÷9 = 1 ✓ #2: 135 = 1+3+5 = 9 ÷ 9 = 1 ✓ #3: 468 = 4+6+8 = 18 ÷9 = 2 ✓ #4: 8,883 =8+8+8+3= 27÷9=3 ✓
10	if the ones digit is 0	10, 300, 1170, 10,450

Divisibility Rules Riddles:

1. I am a 2-digit number divisible by 2.
   Who am I?

2. I am a 3-digit number divisible by 3 whose middle digit is a "5."
   Who am I?

3. I am a 4-digit number divisible by 4 whose hundreds number is 7 and the sum of my digits is 22.
   Who am I?

4. I am a 5-digit number divisible by 5. The sum of my digits is 10.

Who am I?

<u>YOU TRY</u>: In groups, come up with your own riddle for class.