

## **DIVISIBILITY RULES**

**Divisible by 2:** The number is even.

**Divisible by 3:** The sum of the digits is divisible by 3.

**Divisible by 4:** Either the last 2 digits are 00 or they form a number that is divisible by 4.

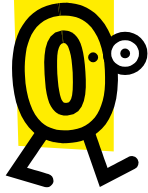
**Divisible by 5:** The ones digit of the number is either 0 or 5.

**Divisible by 6:** The number is even and the sum of the digits is divisible by 3.

**Divisible by 9:** The sum of the digits is divisible by 9.

**Divisible by 10:** The ones digit of the number is 0.

\*\*\*\* The grade 5 standard (5.N.8) only calls for the divisibility rules for 2, 3, 5, & 10. The rules for 4, 6, & 9 are included on this sheet to challenge those students who are efficient with all facts.



Directions: Remainder Zero



Materials: 1 recording sheet per player, dice, divisibility rules

1. Each student rolls the number of dice needed to make the division equation.

<input type="text"/>	<input type="text"/>	2 digit ÷ 1 digit	3 dice
<input type="text"/>	<input type="text"/>	3 digit ÷ 1 digit	4 dice
<input type="text"/>	<input type="text"/>	4 digit ÷ 1 digit	5 dice

2. Use the digits from your dice to write a division equation. *You cannot use 1 as your divisor.* Try to make the smallest remainder possible.
3. Compare your remainder with your partner. The partner with the smaller remainder puts a checkmark next to his/her work. The player with the most checkmarks wins!

- 2011 Massachusetts Frameworks: 5.NBT.6 Find whole-number quotients and remainders with **up to** four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and or the relationship between multiplication and division.

Name \_\_\_\_\_ Date \_\_\_\_\_

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Remainder Zero



Name: \_\_\_\_\_

Round 1Workspace	Remainder	Smallest?
Round 2Workspace		
Round 3Workspace		
Round 4Workspace		
Round 5Workspace		

Name \_\_\_\_\_ Date \_\_\_\_\_

