

### Lesson 3-3 Divisibility Tests

is divisible by ____	If...	Example
2	It ends in 0, 2, 4, 6 or 8	1,28 <u>4</u>
3	The sum of the digits is divisible by 3.	123 = 1+2+3=6 6÷3 ✓
4	The number formed by the last two digits is ÷ by 4.	3,4  <u>16</u> 16÷4? ✓
5	It ends in 0 or 5.	10 <u>5</u> 40,00 <u>0</u> 1,02 <u>5</u> <u>10</u>
8	The number formed by the last three digits is ÷ by 8.	29, <u>640</u>
9	The sum of the digits is ÷ by 9.	324 → 3+2+4=9 ✓ 6,876 → 6+8+7+6=27 ✓
10	It ends in 0.	1,000,00 <u>0</u> <u>50</u> <u>10</u> <u>800</u> <u>1,000</u>

State whether each number is divisible by 2, 3, 4, 5, 8, 9, 10, or none.

- 111      3
- 52      2, 4
- 282      2, 3
- 567      3, 9

State whether each number is divisible by 2, 3, 4, 5, 8, 9, 10, or none.

1,015 5

111,120 2, 3, 4, 5, 8, 10

465 5, 3

29,640 2, 3, 4, 5, 8, 10

**Problem Solving!**

A friend sends you a message signed with the code number 5,385.

- Dave's number is divisible by 3, 5, and 8.
- Janice's number is divisible by 2 and 3, but not 4.
- Joshua's number is divisible by 4 and 5, but not 3.
- Karen's number is divisible by 3 and 5, but ~~not 8~~. Who sent the message?  
✓ ✓ ✓