

Name \_\_\_\_\_

# Investigate Remainders

**I Can** use models to solve division problems with remainders.

## Florida's B.E.S.T.

- Number Sense & Operations 4.NSO.2.4, 4.NSO.2.5
- Algebraic Reasoning 4.AR.1.1
- Mathematical Thinking & Reasoning MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1

## Investigate

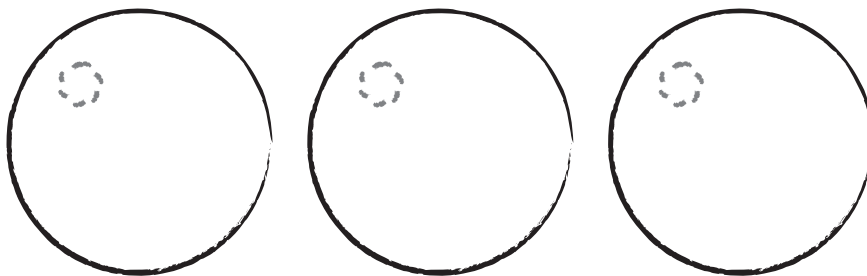
**Materials** ■ counters

Taliya and 2 friends are playing a game of dominoes. There are 28 dominoes in the set. Taliya wants each player to receive the same number of dominoes. Can she divide them equally among the 3 players? Why or why not?

You can use division to find the number of dominoes each player will receive.

- Use 28 counters to represent the 28 dominoes. Then draw 3 circles to represent the 3 players.
- Share the counters equally among the 3 groups by placing them in the circles.

**Draw a quick picture to show your work.**



- Find the number of counters in each group and the number of counters left over. Record your answer.

\_\_\_\_\_ counters in each group

\_\_\_\_\_ counter left over



## Draw Conclusions

1. How many dominoes does each player receive? \_\_\_\_\_

How many dominoes are left over? \_\_\_\_\_



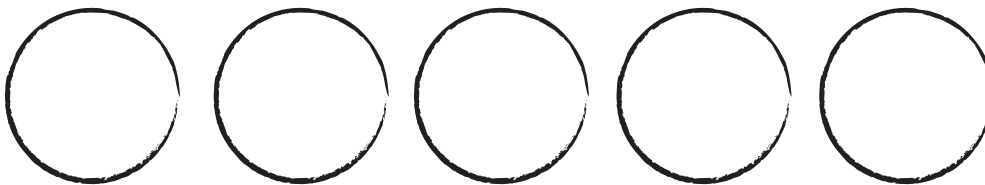
## Make Conections

When a number cannot be divided evenly, the amount left over is called the **remainder**.

Use counters to find  $39 \div 5$ .

- Share 39 counters equally among 5 groups. The number of counters left over is the remainder.

Draw a quick picture to show your work.



For  $39 \div 5$ , the quotient is \_\_\_\_\_ and the remainder is \_\_\_\_\_, or 7 r4.

Write the remainder as a fraction.

Since there are 4 counters left and you need 5 to keep the groups equal, the remainder is  $\frac{4}{5}$ .



**MTR**  
**4.1**

Engage in discussions on mathematical thinking.

How do you know when there will be a remainder in a division problem?

## Share and Show



find the quotient and remainder. Write the remainder as a fraction.

1.  $10 \div 3$

\_\_\_\_\_

2.  $28 \div 5$

\_\_\_\_\_

3.  $15 \div 6$

\_\_\_\_\_

4.  $11 \div 3$

\_\_\_\_\_

5.  $29 \div 4$

\_\_\_\_\_

6.  $34 \div 5$

\_\_\_\_\_

7.  $25 \div 3$

\_\_\_\_\_

8.  $7 \overline{)20}$

\_\_\_\_\_

Divide.

9.  $4 \overline{)35}$

\_\_\_\_\_

10.  $23 \div 8$

\_\_\_\_\_

12. Alyson has 46 beads to make bracelets. Each bracelet has 5 beads. How many more beads does Alyson need so that all the beads she has are used?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. For 13a–13d, choose Yes or No to tell whether the division expression has a remainder.

13a.  $36 \div 9$  ☐ Yes ☐ No

13b.  $23 \div 3$  ☐ Yes ☐ No

13c.  $82 \div 9$  ☐ Yes ☐ No

13d.  $28 \div 7$  ☐ Yes ☐ No

14. Macy, Kayley, Maddie, and Rachel collected 13 marbles. They want to share the marbles equally. How many marbles will each of the 4 girls get? How many marbles will be left over?

