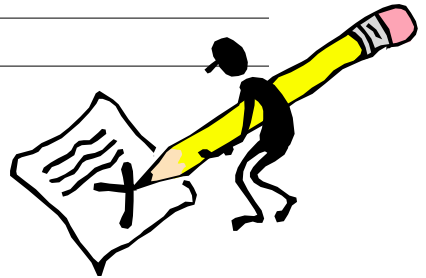


Math Journal



Learning Target

I can understand and solve two-digit dividend division problems with a remainder in the ones place by using place value discs.

DIVIDING DISCS

Understanding why and how division works is critical as we encounter larger dividends. Use the visual models of the place value discs to see how numbers are broken down by place.

Represent the problem using place value discs and connect it to the standard algorithm.

$$6 \div 3 = m$$

Place Value
Discs

Standard
Algorithm

T	O
---	---

$$3 \overline{) 6}$$

	•••
	•••

3 groups

$$36 \div 3 = m$$

Place Value
Discs

Standard
Algorithm

T	O
---	---

$$3 \overline{) 36}$$

•••	•••
	•••
	•••

3 groups

Noticings



Reflect:

How can you check each answer using multiplication?



Represent the problem using place value discs and connect it to the standard algorithm.

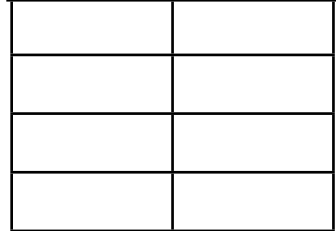
$$5 \div 4 = m$$

Place Value
Discs

Standard
Algorithm



$$4 \overline{) 5}$$



4 groups

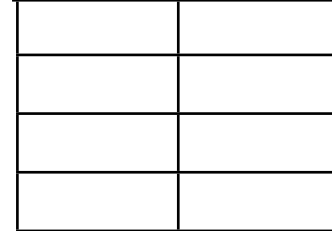
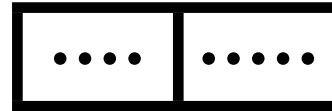
$$45 \div 4 = m$$

Place Value
Discs

Standard
Algorithm



$$4 \overline{) 45}$$



4 groups

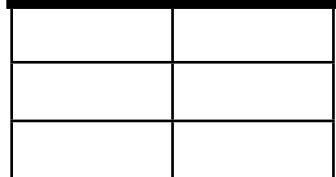
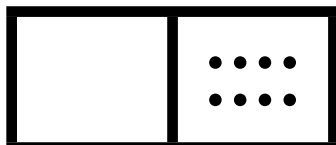
$$8 \div 3 = m$$

Place Value
Discs

Standard
Algorithm



$$3 \overline{) 8}$$



3 groups

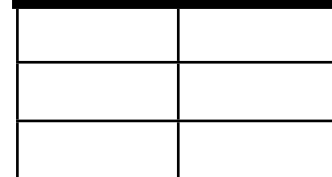
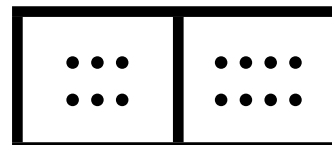
$$68 \div 3 = m$$

Place Value
Discs

Standard
Algorithm



$$3 \overline{) 68}$$



3 groups

Mots Mathématiques

Check Division with Multiplication:

1. Multiply the quotient by the divisor.
2. Add any remainder to the product.
3. Compare answer to the dividend.

$$27 \div 4 = 6 \text{ R } 3$$

$$\text{Check: } 6 \times 4 = 24 + 3$$

Represent the problem using place value discs and connect it to the standard algorithm.

$7 \div 2 = m$

Place Value Discs	Standard Algorithm								
<table border="1"><tr><td>T</td><td>O</td></tr></table>	T	O	$2 \overline{) 7}$						
T	O								
<table border="1"><tr><td></td><td>••••</td></tr><tr><td></td><td>••••</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> 2 groups		••••		••••					
	••••								
	••••								

$27 \div 2 = m$

Place Value Discs	Standard Algorithm								
<table border="1"><tr><td>T</td><td>O</td></tr></table>	T	O	$2 \overline{) 27}$						
T	O								
<table border="1"><tr><td>••</td><td>••••</td></tr><tr><td></td><td>••••</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> 2 groups	••	••••		••••					
••	••••								
	••••								

Check:

Check:

$4 \div 3 = m$

Place Value Discs	Standard Algorithm								
<table border="1"><tr><td>T</td><td>O</td></tr></table>	T	O	$3 \overline{) 4}$						
T	O								
<table border="1"><tr><td></td><td>•••</td></tr><tr><td></td><td>••</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> 3 groups		•••		••					
	•••								
	••								

$54 \div 3 = m$

Place Value Discs	Standard Algorithm								
<table border="1"><tr><td>T</td><td>O</td></tr></table>	T	O	$3 \overline{) 54}$						
T	O								
<table border="1"><tr><td>•••</td><td>•••</td></tr><tr><td>••</td><td>••</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> 3 groups	•••	•••	••	••					
•••	•••								
••	••								

Check:

Check:



Mots Mathématiques

Check Division with Multiplication:

1. Multiply the quotient by the divisor.
2. Add any remainder to the product.
3. Compare answer to the dividend.

$$27 \div 4 = 6 \text{ R } 3$$

$$\text{Check: } 6 \times 4 = 24 + 3$$

$6 \div 4 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$4 \overline{) 6}$$

	••••
--	------

4 groups

Check:

$86 \div 4 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$4 \overline{) 86}$$

••••	••••
------	------

4 groups

Check:

$7 \div 3 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$3 \overline{) 7}$$

	••••
--	------

3 groups

Check:

$67 \div 3 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$3 \overline{) 67}$$

••••	••••
------	------

3 groups

Check:

$5 \div 2 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$2 \overline{) 5}$$

	••••
--	------

2 groups

Check:

$85 \div 2 = m$

Place Value
Discs

T	O
---	---

Standard
Algorithm

$$2 \overline{) 85}$$

••••	••••
------	------

2 groups

Check:

$5 \div 4 = m$

Place Value Discs		Standard Algorithm
T	O	
	••	$4 \overline{) 5}$

4 groups

Check:

$85 \div 4 = m$

Place Value Discs		Standard Algorithm
T	O	
••••	••	$4 \overline{) 85}$

4 groups

Check:

$9 \div 2 = m$

Place Value Discs		Standard Algorithm
T	O	
	•••••	$2 \overline{) 9}$

2 groups

Check:

$57 \div 3 = m$

Place Value Discs		Standard Algorithm
T	O	
•••	••••	$3 \overline{) 57}$

3 groups

Check:

$16 \div 5 = m$

Place Value Discs		Standard Algorithm
T	O	
	•••••	$5 \overline{) 16}$

5 groups

Check:

$73 \div 4 = m$

Place Value Discs		Standard Algorithm
T	O	
••••	•••	$4 \overline{) 73}$

4 groups

Check:

Homeroom: R

Name: _____

Date: _____



Show the division using discs. Relate your work on the place value chart to long division. Check your quotient and remainder by using multiplication and addition.

$$5 \div 3$$

Check:

T	O
---	---

$$3 \overline{) 5}$$

$$65 \div 3$$

Check:

T	O
---	---

$$3 \overline{) 65}$$

