

# Exploring Addition with Cuisenaire® Rods

Color the rods.  
Complete each addition sentence.

If  $\boxed{W} = 1$ , then...

<b>1.</b>	Brown								
	W	Black							
<b>2.</b>	Brown								
	Red	Dark Green							
<b>3.</b>	Brown								
	Light Green	Yellow							
<b>4.</b>	Brown								
	Purple	Purple							

$$\boxed{1} + \boxed{7} = \boxed{8}$$

$$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{8}$$

$$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{8}$$

$$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{8}$$

# Recording Addition Sentences

Color the rods.

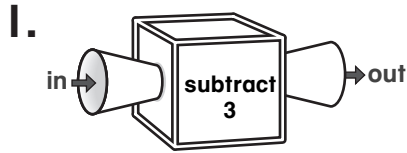
Complete each addition sentence.

If  $\boxed{W} = 1$ , then...

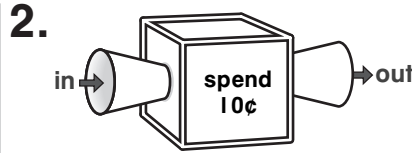
<b>1.</b>	Black		$\boxed{2} + \boxed{5} = \boxed{7}$
	Red	Yellow	
<b>2.</b>	Dark Green		$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{\phantom{0}}$
	Red	Purple	
<b>3.</b>	Blue		$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{\phantom{0}}$
	Purple	Yellow	
<b>4.</b>	Orange		$\boxed{\phantom{0}} + \boxed{\phantom{0}} = \boxed{\phantom{0}}$
	Yellow	Yellow	

# Exploring Input/Output Tables

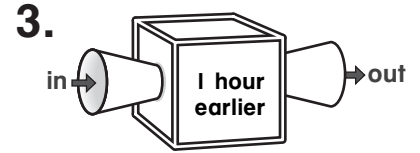
What is missing?



in	out
9	6
5	2
10	
	4
	3
3	
	5



in	out
53¢	43¢
67¢	
	68¢
70¢	
	83¢
	72¢
	90¢

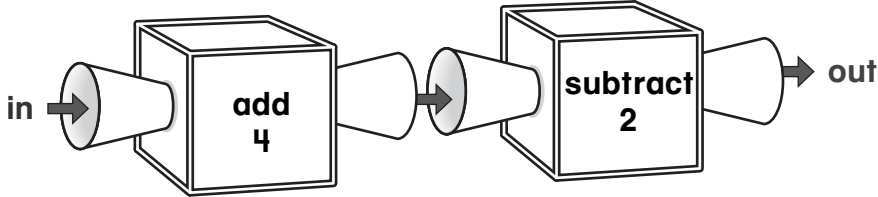


in	out
2:00	1:00
3:00	2:00
5:30	:
12:00	:
:	8:00
:	5:30
:	6:30

# Using Input/Output Tables

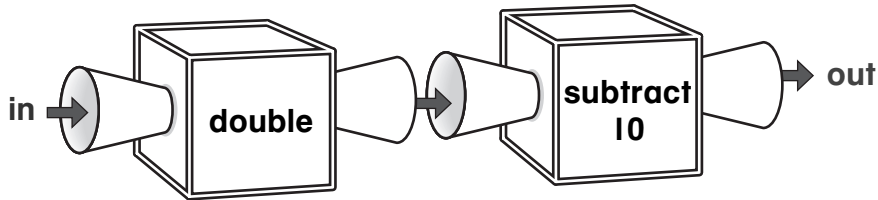
What is missing?

1.



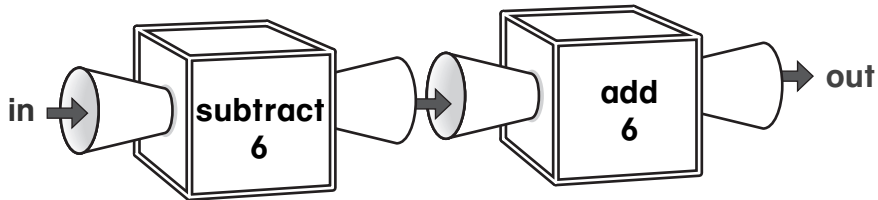
<b>in</b>	4	7	3	6	8	9	
<b>out</b>	6						7

2.



<b>in</b>	5	8	10	7	6		
<b>out</b>	0					8	12

3.

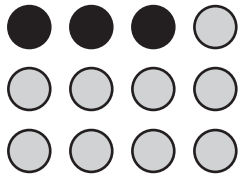


<b>in</b>	12	10	6	8	11	7	
<b>out</b>	12						9

# Making Fact Families

What is the fact family?

1.



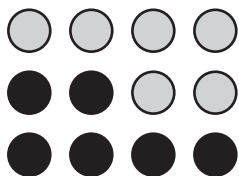
$$\begin{array}{r} 3 + 9 = 12 \\ \hline \end{array}$$

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} 12 - \quad = 9 \\ \hline \end{array}$$

$$\begin{array}{r} 12 - \quad = \\ \hline \end{array}$$

2.



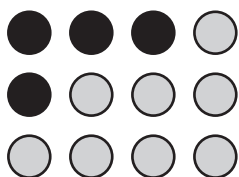
$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

3.



$$\begin{array}{r} \phantom{0} \\ + \\ \hline \phantom{0} \\ \phantom{0} \end{array}$$

$$\begin{array}{r} \phantom{0} \\ + \\ \hline \phantom{0} \\ \phantom{0} \end{array}$$

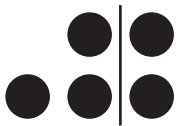
$$\begin{array}{r} \phantom{0} \\ - \\ \hline \phantom{0} \\ \phantom{0} \end{array}$$

$$\begin{array}{r} \phantom{0} \\ - \\ \hline \phantom{0} \\ \phantom{0} \end{array}$$

# Fact Families and Stair-Step Numbers

What is the fact family?

1.



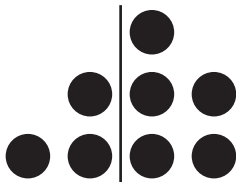
$$\underline{3 + 2 = 5}$$

$$\underline{2 + 3 = \quad}$$

$$\underline{5 - 2 = \quad}$$

$$\underline{5 - 3 = \quad}$$

2.



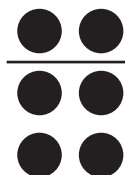
$$\underline{3 + 5 = \quad}$$

$$\underline{\quad + \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

3.



$$\underline{2 + 4 = \quad}$$

$$\underline{\quad + \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

4.



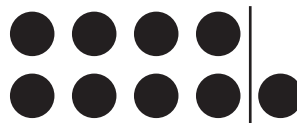
$$\underline{2 + 5 = \quad}$$

$$\underline{\quad + \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

5.



$$\underline{8 + 1 = \quad}$$

$$\underline{\quad + \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

$$\underline{\quad - \quad = \quad}$$

# Connecting Stories and Fact Families

## What is the fact family?

1. Spot has 6 toys.  
2 are balls.  
The others are ropes.

$$\begin{array}{r} 2 + 4 = 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 + 2 = 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 - 4 = \\ \hline \end{array}$$

$$\begin{array}{r} 6 - \quad = \\ \hline \end{array}$$

2. All of Jane's hats  
are red or blue.  
4 are red.  
5 are blue.

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

3. 3 fish are gold.  
The rest are blue.  
There are 11 fish.

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} + \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

$$\begin{array}{r} - \quad = \\ \hline \end{array}$$

# Two-Sentence Fact Families

What is the fact family?

1.



$$+ =$$


---

$$+ =$$


---

$$- =$$


---

$$- =$$


---

2.



$$+ =$$


---

$$+ =$$


---

$$- =$$


---

$$- =$$


---

3. Liz has 6 flowers.  
3 are red.  
The rest are yellow.

$$+ =$$


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$$- =$$


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4. Adam and Pete have  
the same number of  
marbles. Together they  
have 12 marbles.

$$+ =$$


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$$- =$$


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