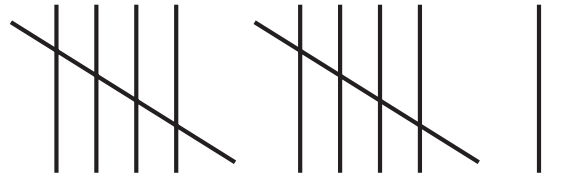
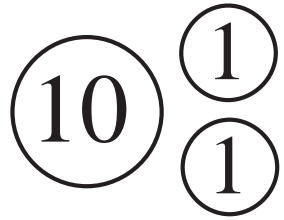
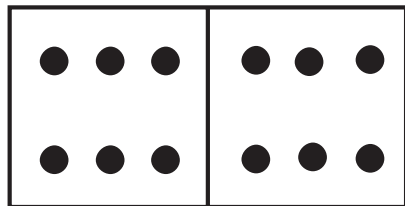


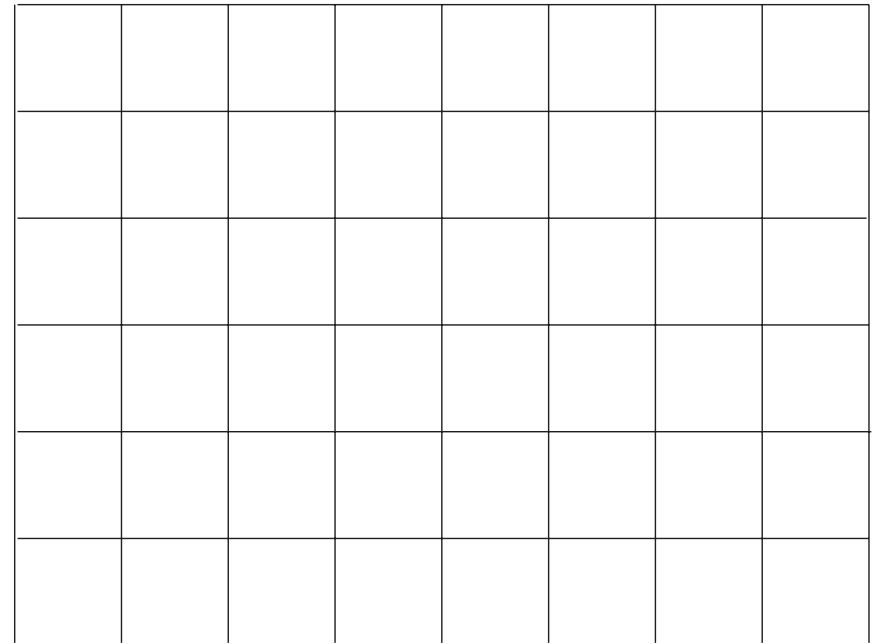
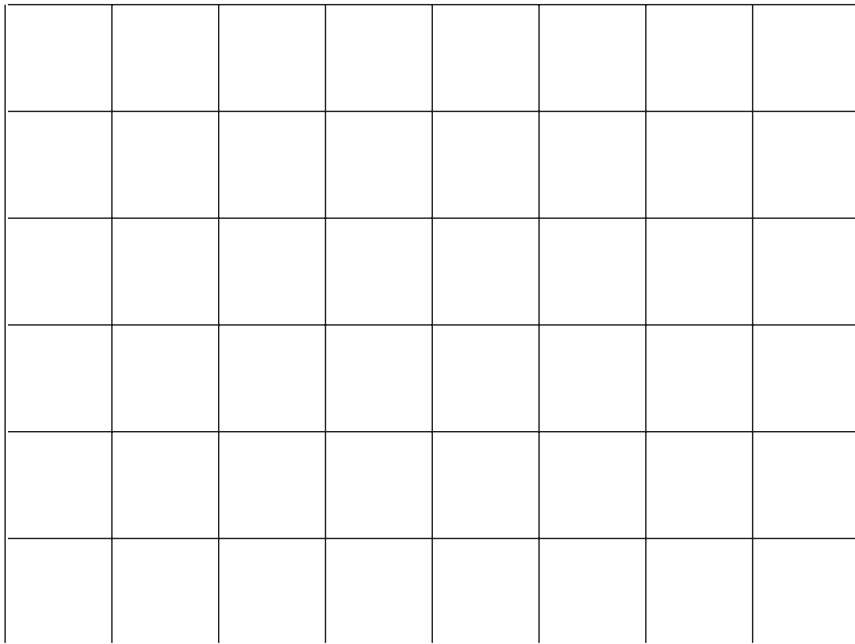
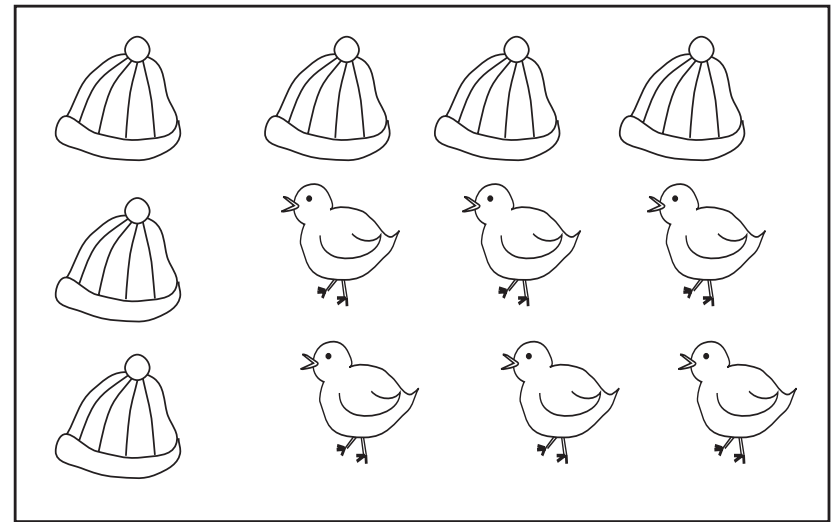
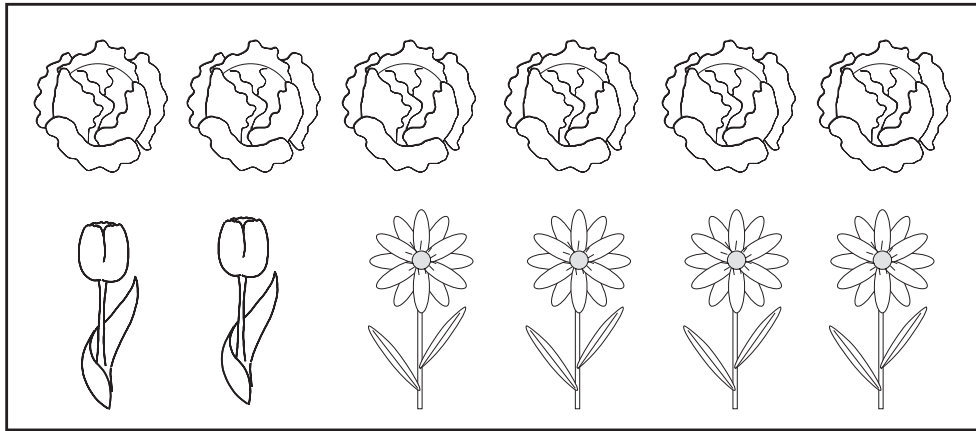
12



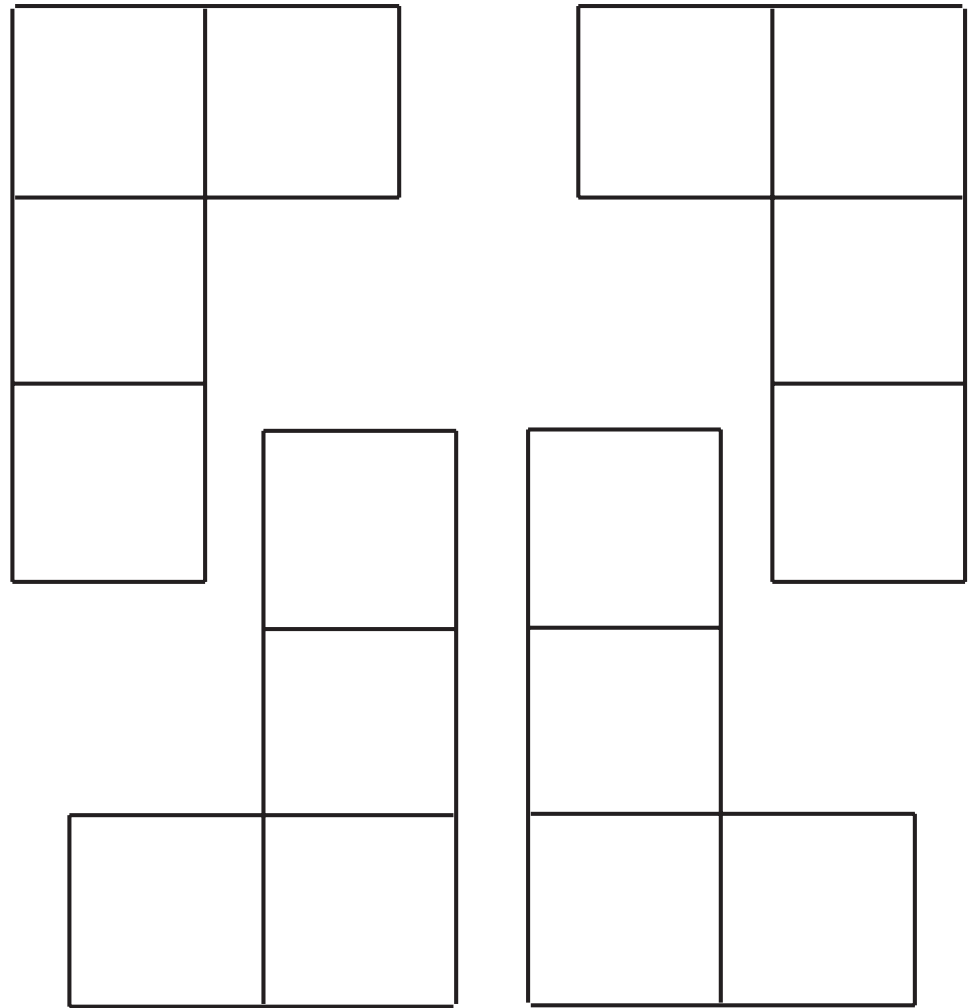
twelve

XII



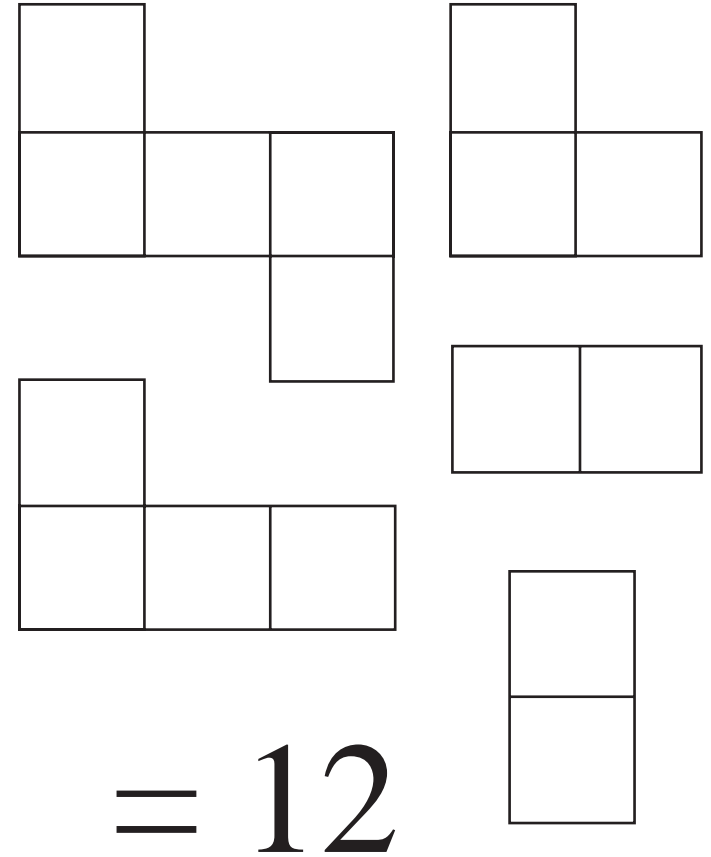


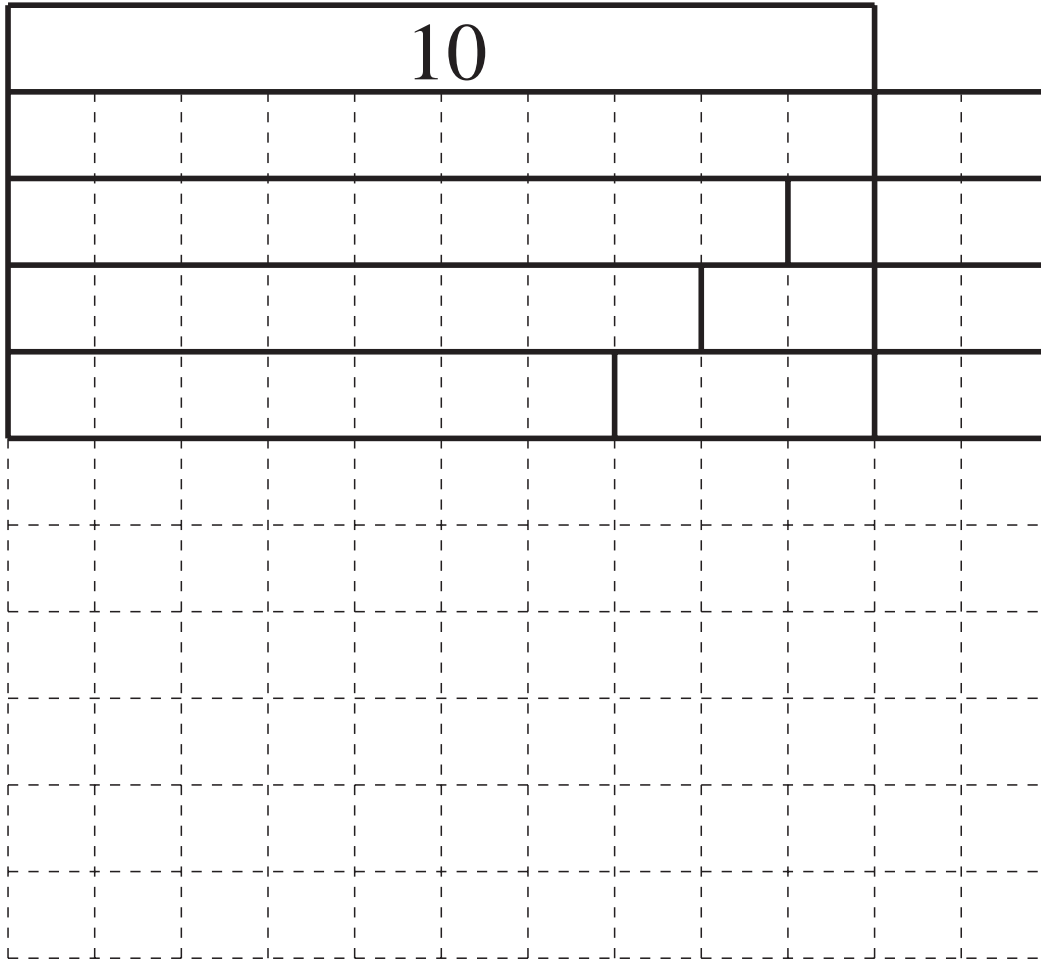
3	3	1	5
3	4	2	5
3	4	3	1
2	2	4	3



$$= 12$$

8	3	4	7	9	4	8	2	6	0
7	2	3	2	4	0	5	1	6	1
0	6	1	2	1	0	8	5	9	1
6	8	5	8	7	8	3	2	0	1
3	5	0	0	9	8	3	3	3	0
0	5	2	6	5	3	0	4	1	2





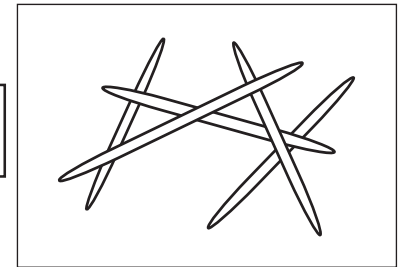
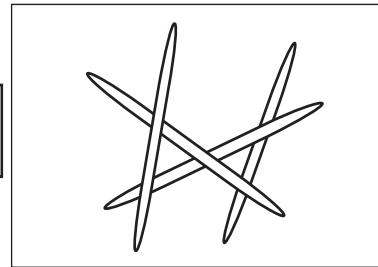
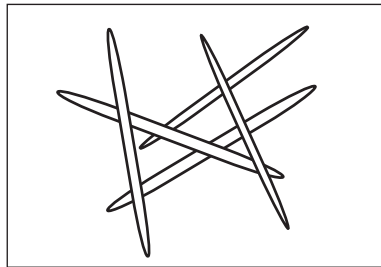
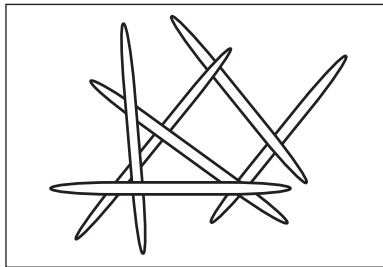
$10 + 2 = 12$
$9 + 1 + 2 = 9 + 3 = 12$
$8 + 2 + 2 = 8 + 4 = 12$

Peggy

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Sue

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Anne

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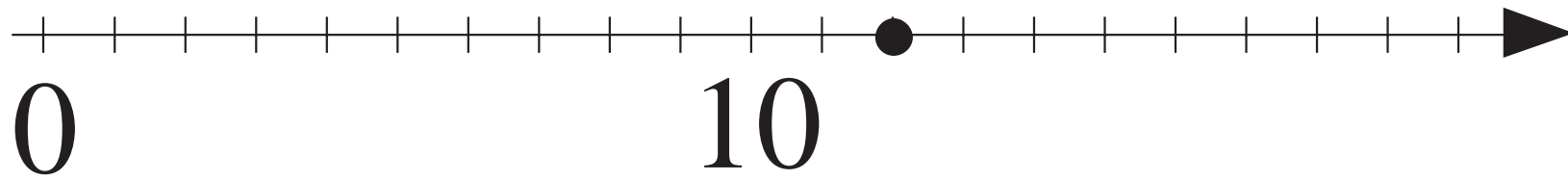
Sarah

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12

12											



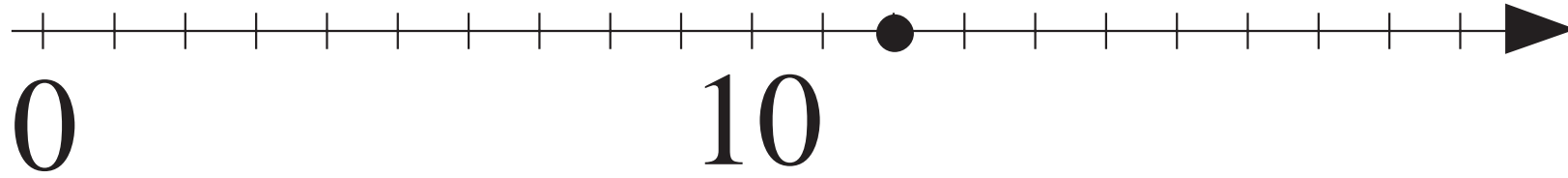
		$< 4$	1	2	$< 4$		
--	--	-------	---	---	-------	--	--

1	2	+	4	=			
---	---	---	---	---	--	--	--

		-	4	=	1	2	
--	--	---	---	---	---	---	--

1	2	-	4	=			
---	---	---	---	---	--	--	--

		+	4	=	1	2	
--	--	---	---	---	---	---	--



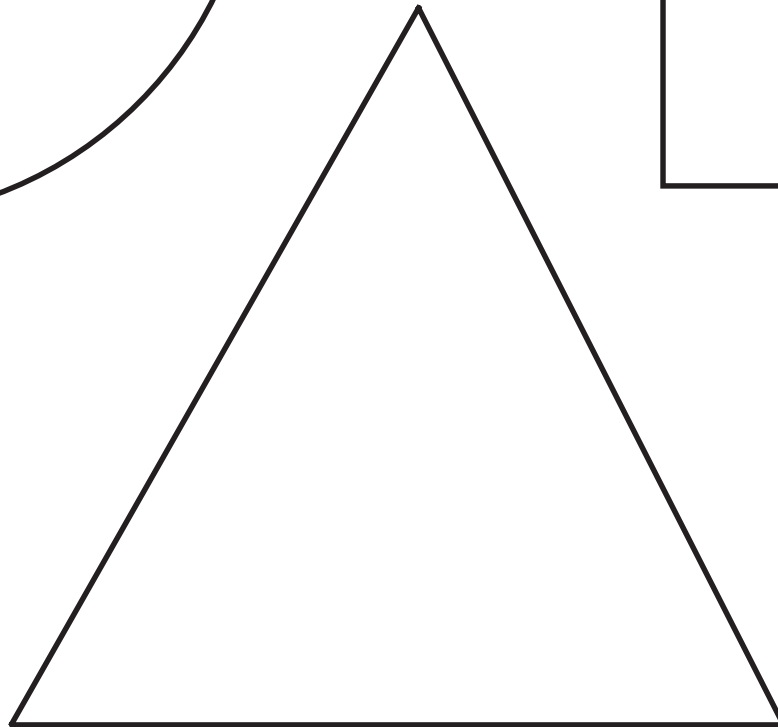
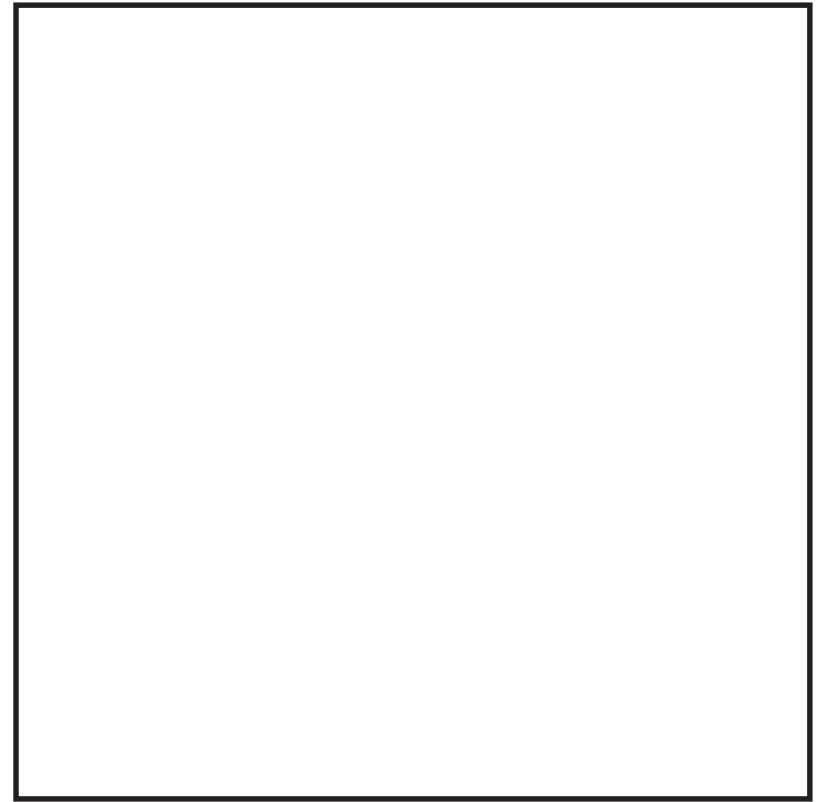
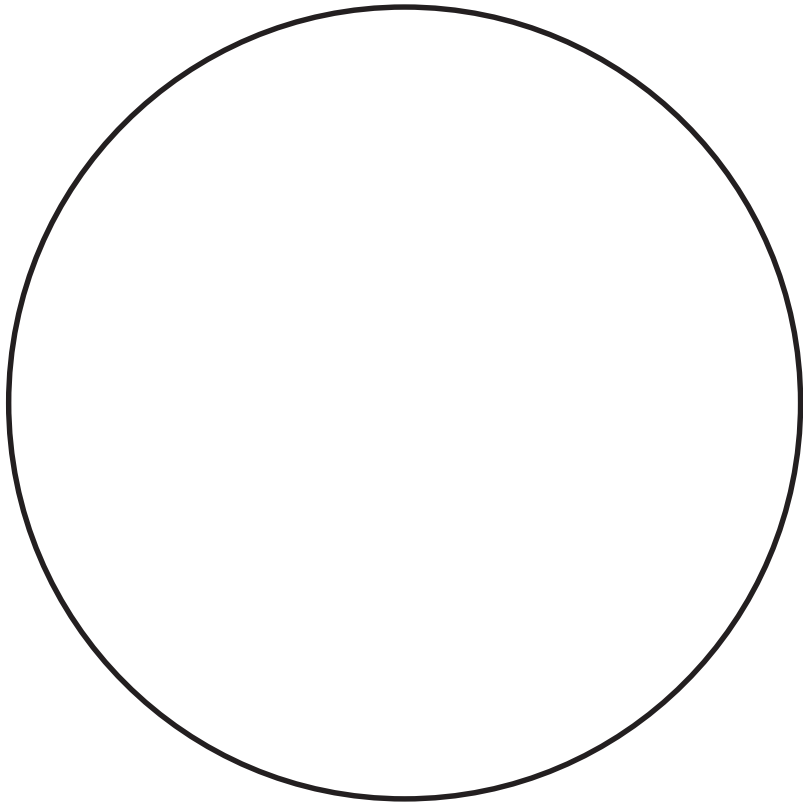
		<5	1	2	<5		
--	--	----	---	---	----	--	--

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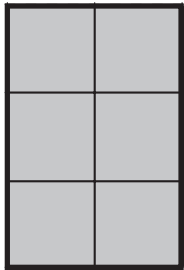
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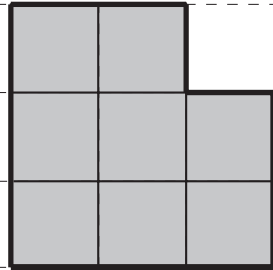
a)



... sticks

... squares

b)



... sticks

... squares

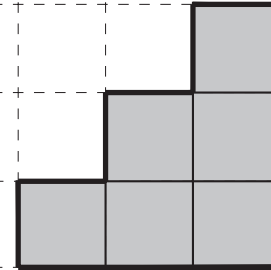
c)



... sticks

... squares

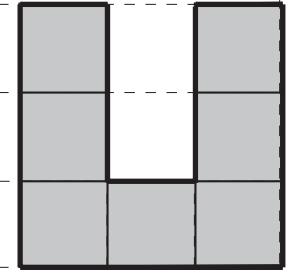
d)



... sticks

... squares

e)



... sticks

... squares

a)

$$\underbrace{5 + 6}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_1 \underbrace{5 + \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

b)

$$\underbrace{\begin{array}{|c|c|} \hline & \\ \hline \end{array} - 9}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} >_2 \underbrace{10 - 9}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

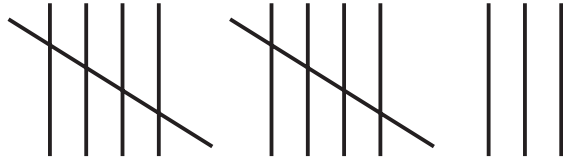
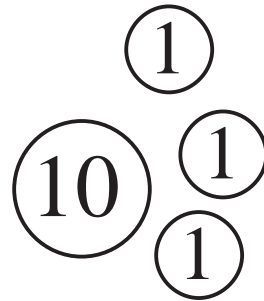
c)

$$\underbrace{\begin{array}{|c|c|} \hline & \\ \hline \end{array} + 8}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} >_3 \underbrace{1 + 8}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

d)

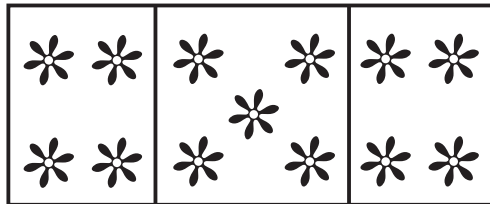
$$\underbrace{11 - 3}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_1 \underbrace{\begin{array}{|c|c|} \hline & \\ \hline \end{array} - 3}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

13

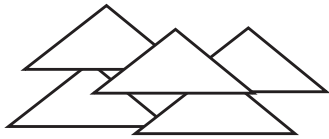


thirteen

XIII



# Julie



5	+			=	1	3
---	---	--	--	---	---	---

1	3	-	5	=		
---	---	---	---	---	--	--

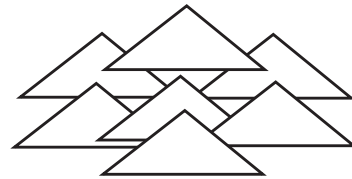
1	3	-		=	5
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# Susan

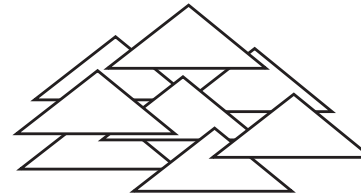


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# Tony

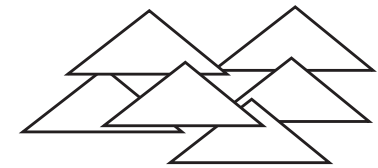


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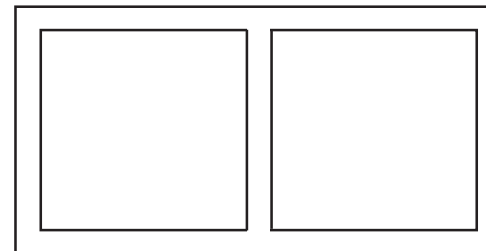
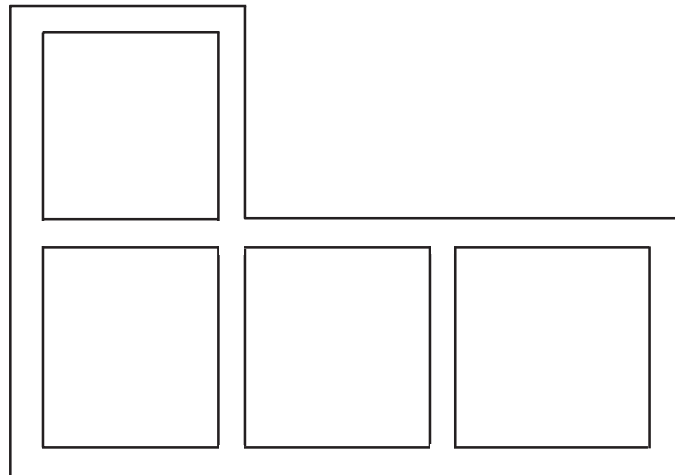
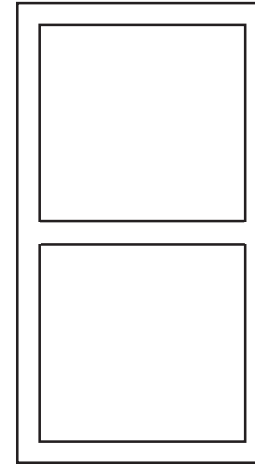
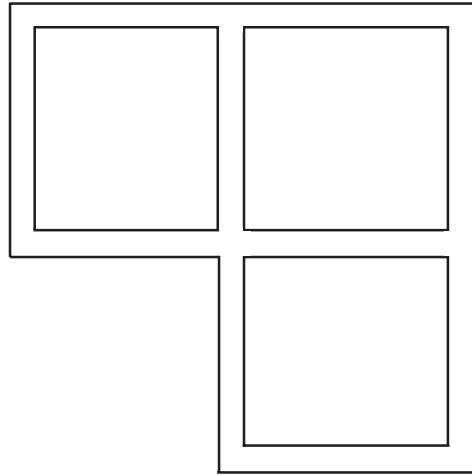
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# Peter



1	9	0	6	2	4	5	5	8	2
8	4	6	3	1	3	5	1	2	0
6	4	0	2	5	1	0	1	9	7
9	0	3	4	0	8	3	0	9	8
3	3	3	3	2	5	0	7	6	6
9	6	0	1	1	0	5	7	4	0

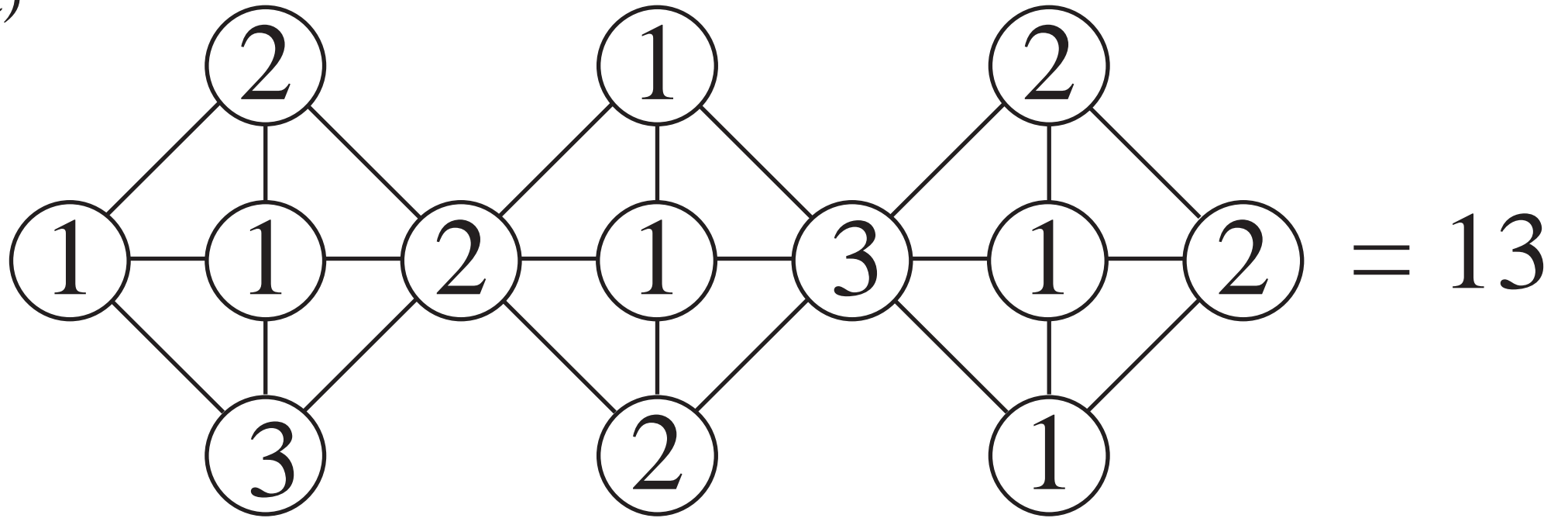




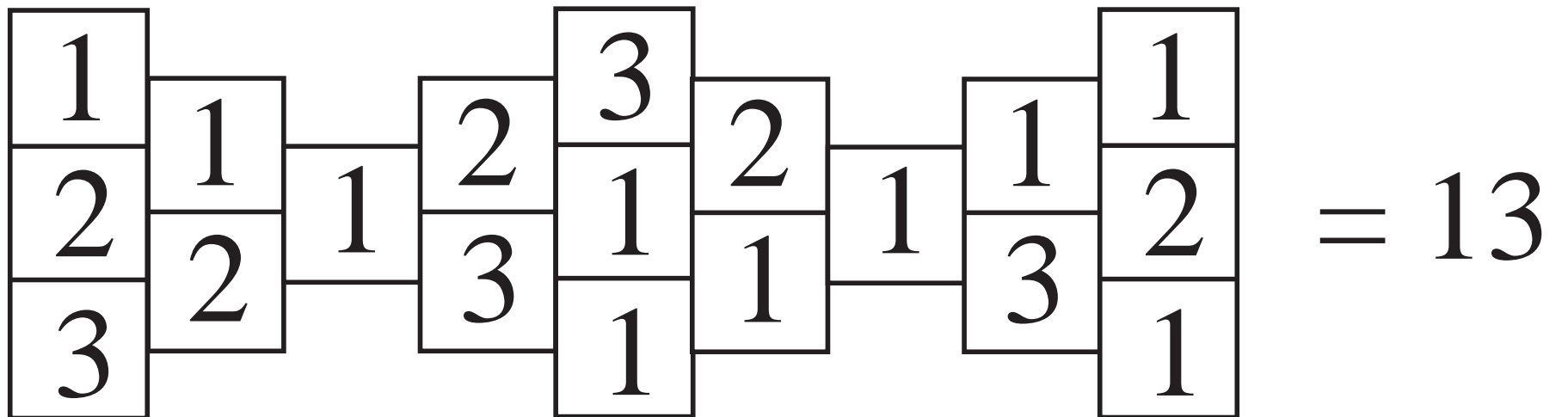
10												

$10 + 3 = 13$
$9 + 1 + 3 = 9 + 4 = 13$
$8 + 2 + 3 = 8 + 5 = 13$

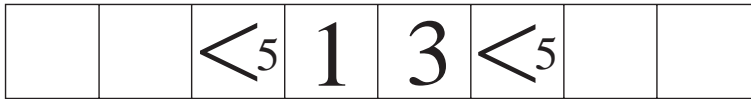
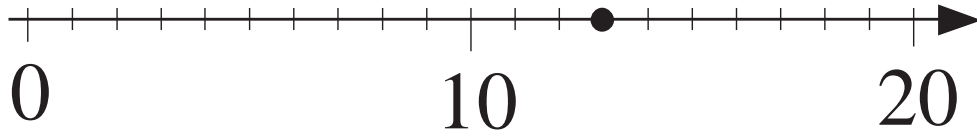
a)



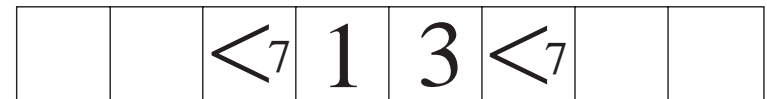
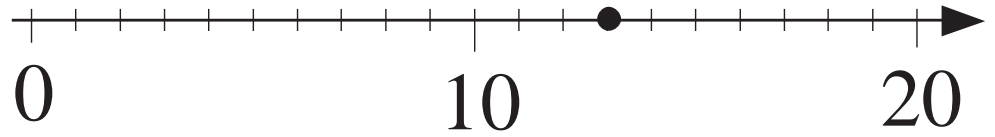
b)



a)

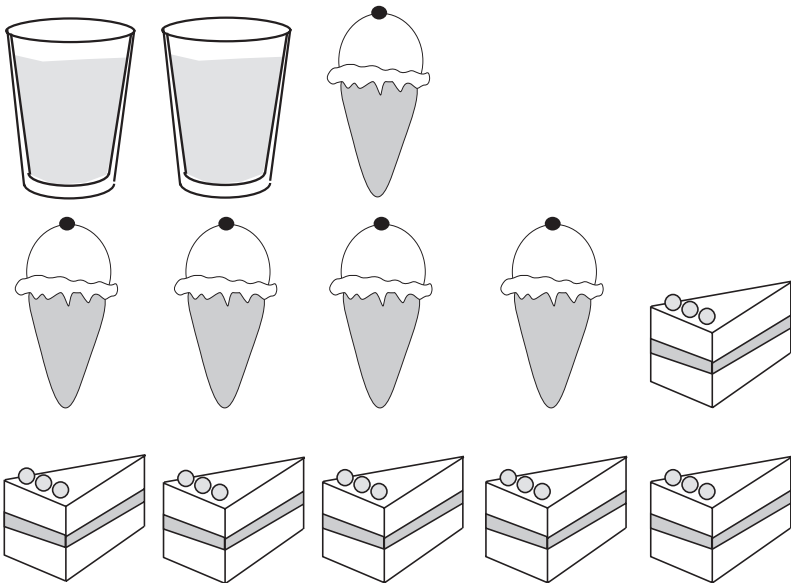


b)

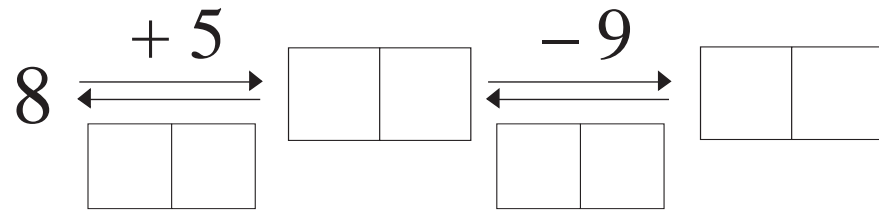


<i>a</i>	8	6	1	2		5			5		3		3	4	
<i>b</i>	2	6			3	2	4	8		2	1	7		0	
<i>c</i>	3		5	10	4		4	4	5	9		4	3		11

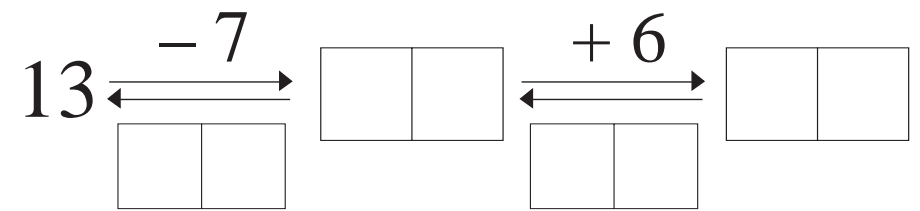
LP 118/8



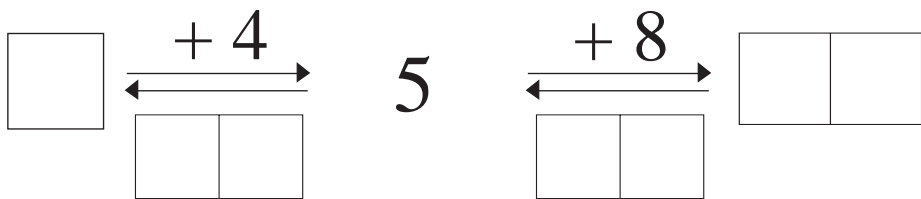

a)



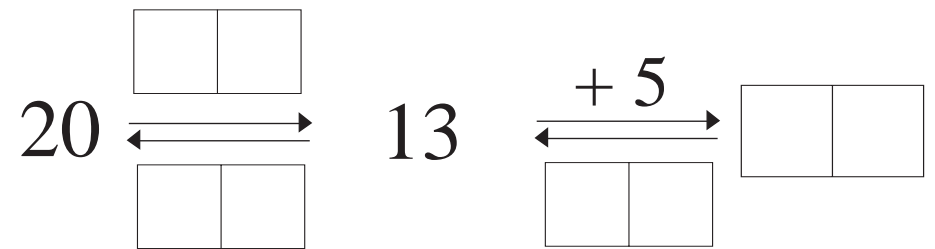
b)



c)



d)



a)

$$\underbrace{6 + 6}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} <_1 \underbrace{6 + \square}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

b)

$$\underbrace{12 - 5}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} <_1 \underbrace{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array} - 5}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

c)

$$\underbrace{4 + 7}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} <_2 \underbrace{4 + \square}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

d)

$$\underbrace{13 - 8}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} >_1 \underbrace{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array} - 9}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

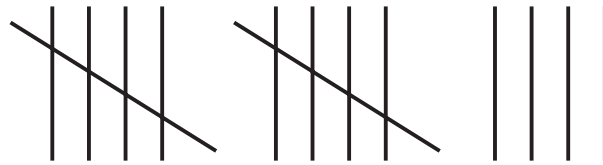
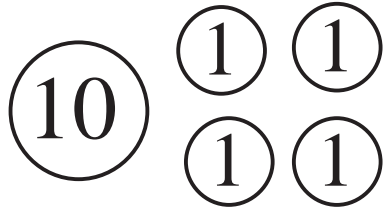
e)

$$\underbrace{20 - \square}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} = \underbrace{6 + 7}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

f)

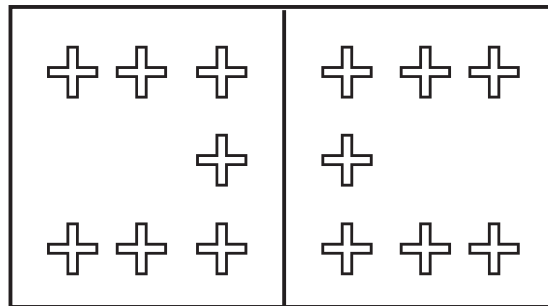
$$\underbrace{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array} - 9}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}} >_3 \underbrace{10 - 9}_{\begin{array}{|c|c|} \hline \phantom{0} & \phantom{0} \\ \hline \end{array}}$$

14



fourteen

XIV



$$a + b = 14$$

$$a = \square \square \square \square$$

$$b = \square \square \square \square$$

$a$	2			9	1			12	14			10			5	8
$b$		10	7			14	8			1		3	11			

LP 121/6

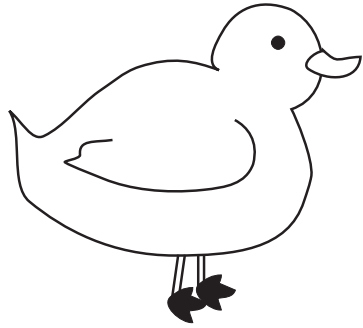
	4	3														
	6	6														

LP 121/7

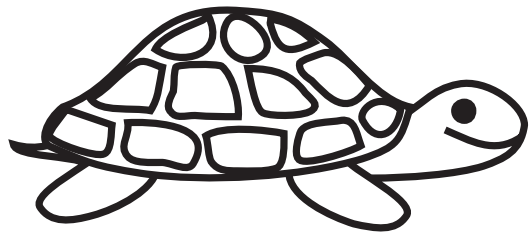


10									

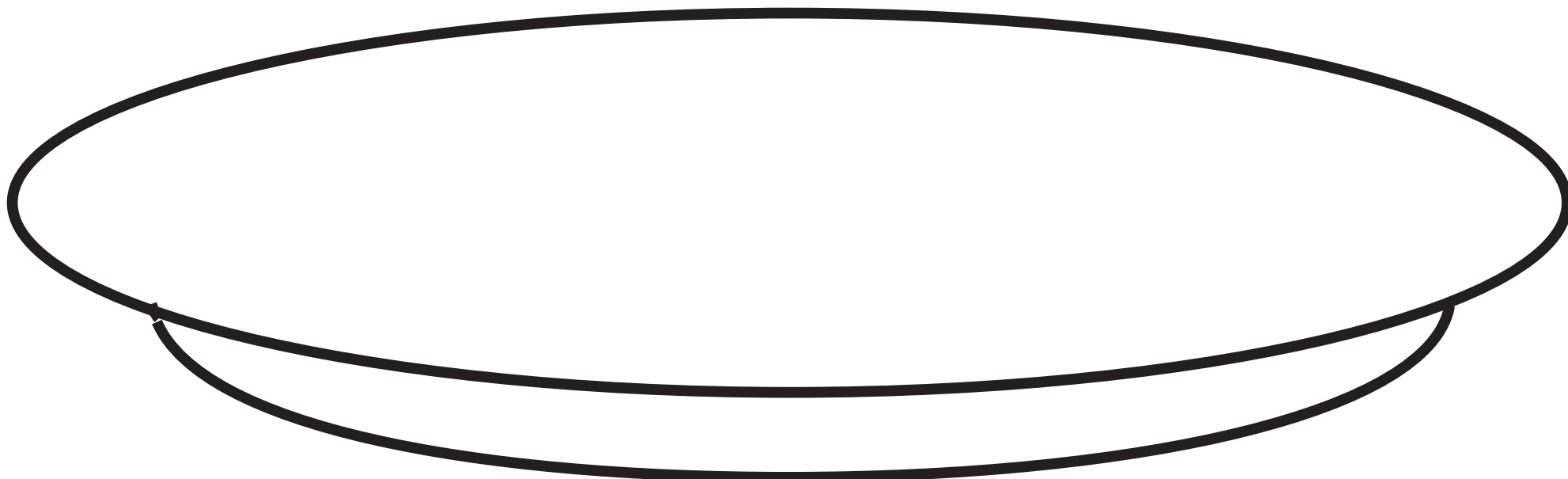
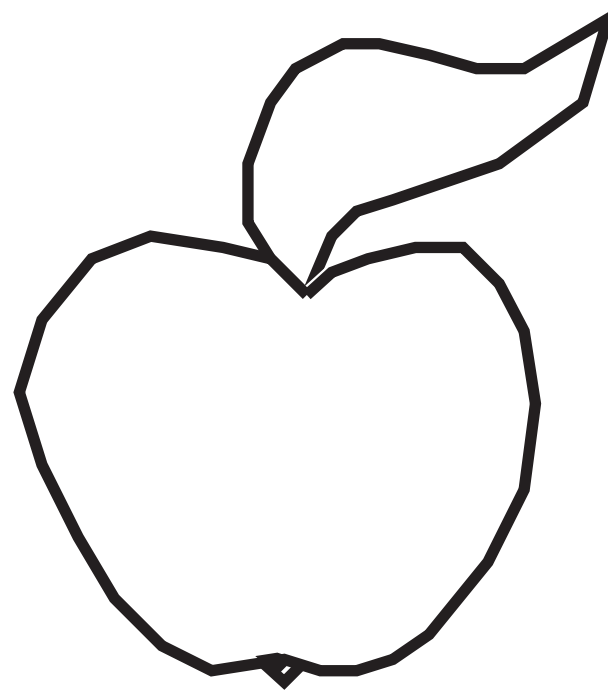
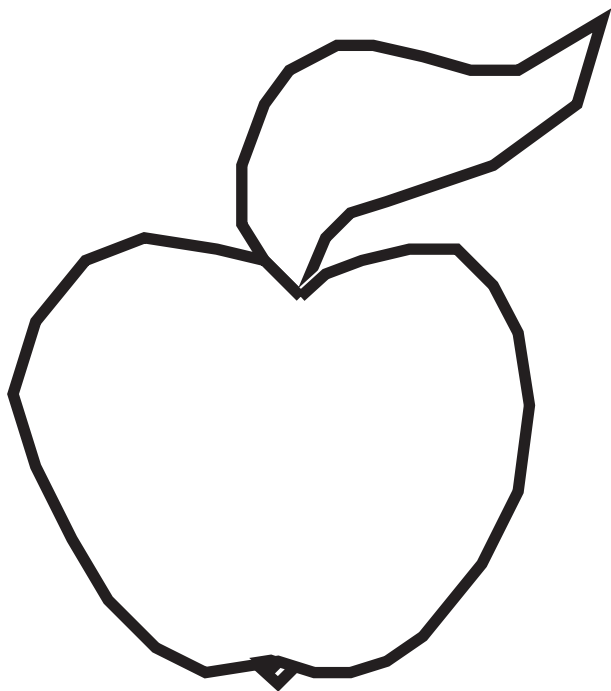
$10 + 4 = 14$
$9 + 1 + 4 = 9 + 5 = 14$
$8 + 2 + 4 = 8 + 6 = 14$

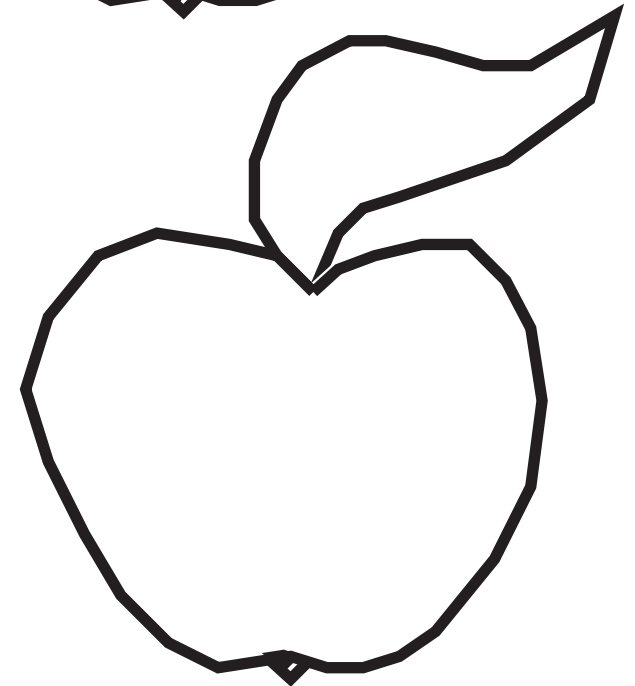
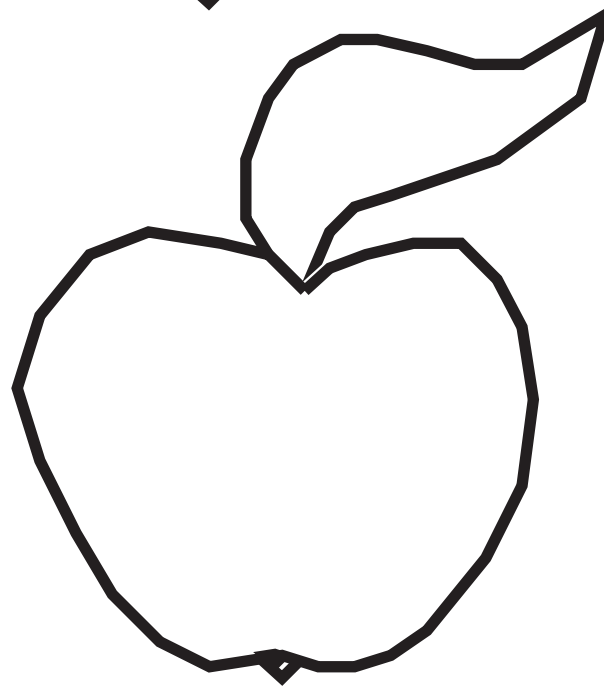
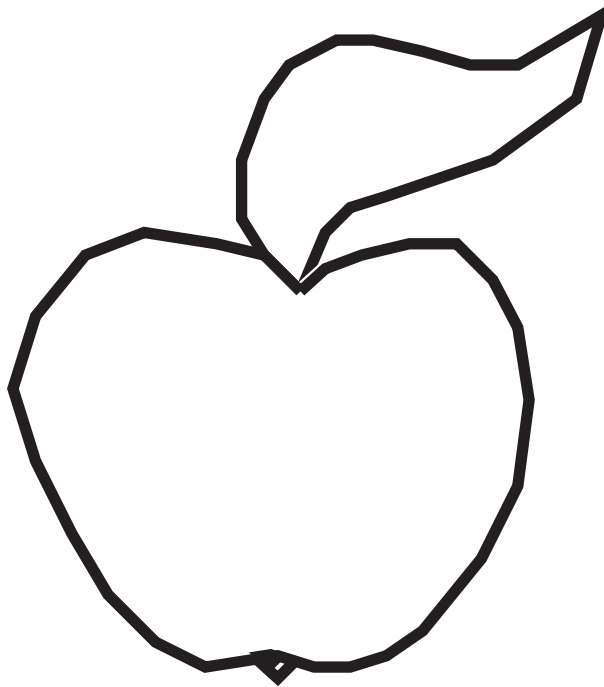
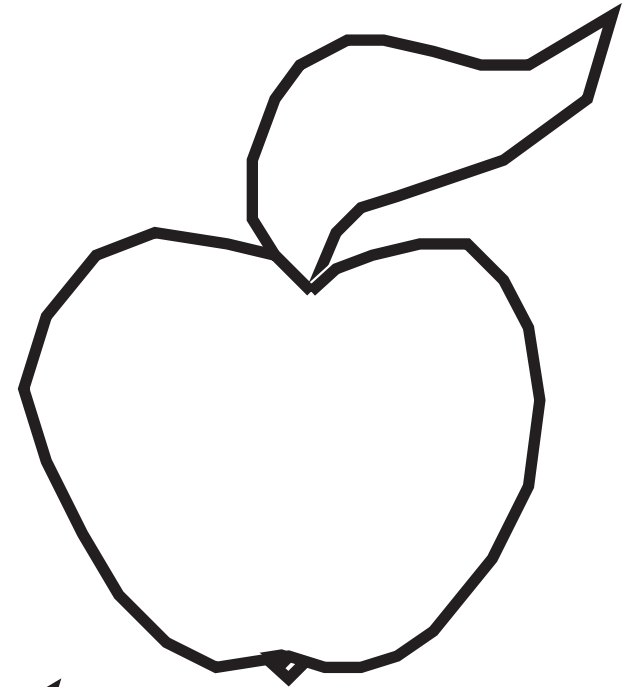
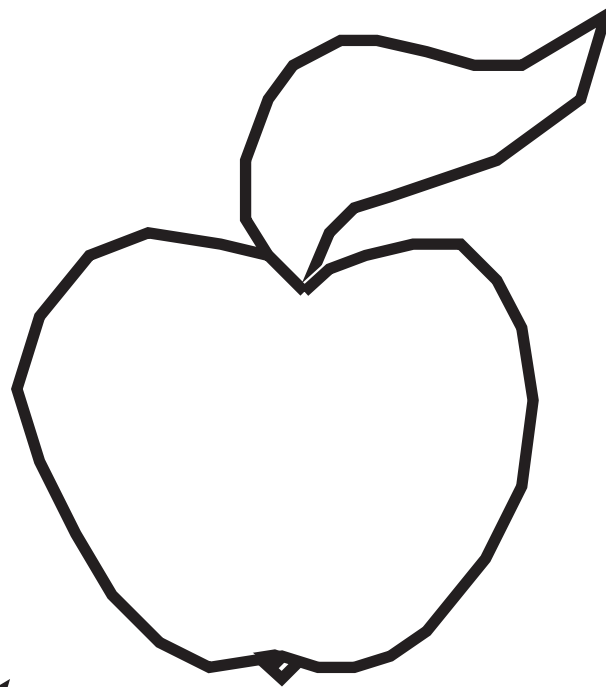
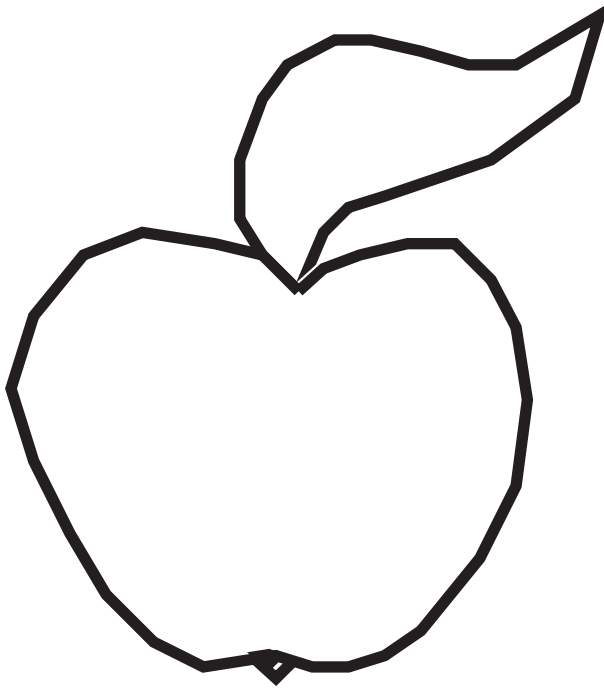


4



Number  
of legs





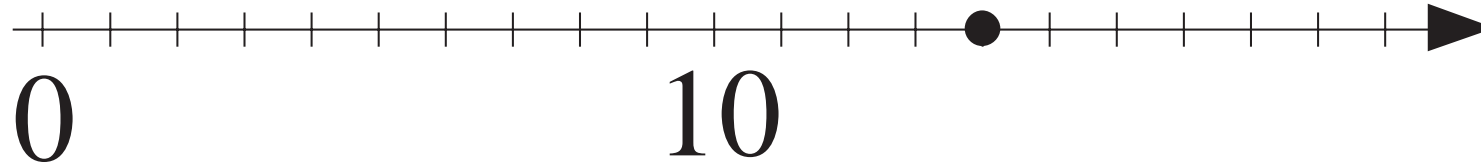


14

14													



<i>a</i>	2	3	6	3		5		1	2		7		8		7
<i>b</i>	2	2	6		5		1	3		4	1	8	3	5	
<i>c</i>	10			4	1	5	4		3	4		4		6	0



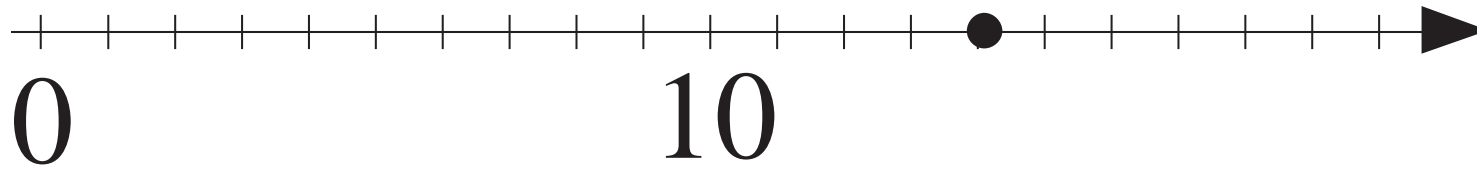
		$< 6$	1	4	$< 6$		
--	--	-------	---	---	-------	--	--

1	4	+	6	=			
---	---	---	---	---	--	--	--

		-	6	=	1	4	
--	--	---	---	---	---	---	--

1	4	-	6	=			
---	---	---	---	---	--	--	--

		+	6	=	1	4	
--	--	---	---	---	---	---	--



		<5	1	4	<5		
--	--	----	---	---	----	--	--

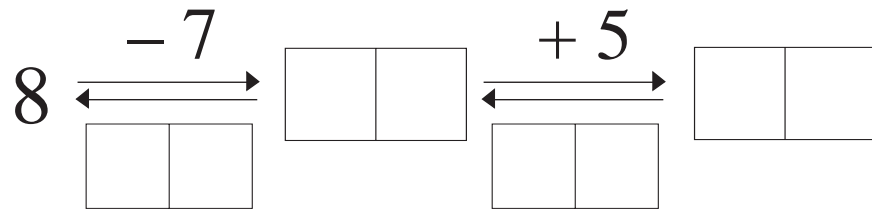
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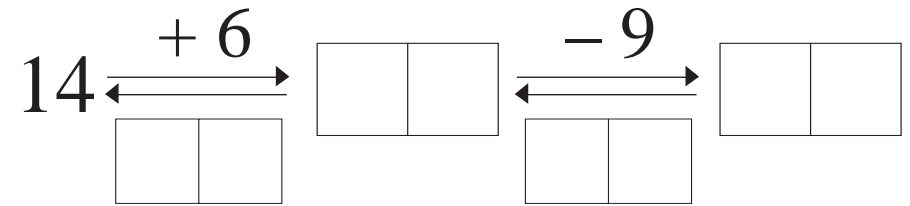
--	--	--	--	--	--	--	--

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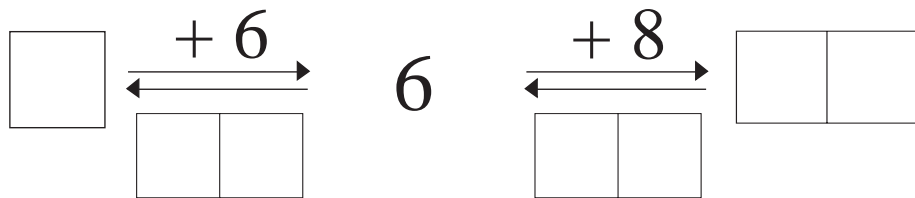
a)



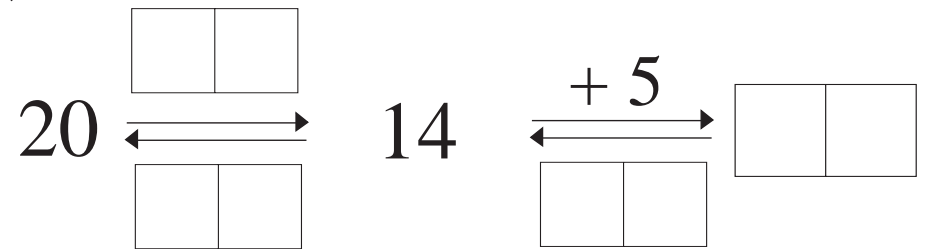
b)



c)



d)



a)

$$\underbrace{5 + 5}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_4 \underbrace{5 + \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

b)

$$\underbrace{12 - 6}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_2 \underbrace{\begin{array}{|c|c|} \hline & \\ \hline \end{array} - 6}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

c)

$$\underbrace{13 - 5}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_2 \underbrace{14 - \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

d)

$$\underbrace{14 - 8}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} 3 > \underbrace{11 - \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

e)

$$\underbrace{7 - \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} 3 > \underbrace{7 - 4}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$

f)

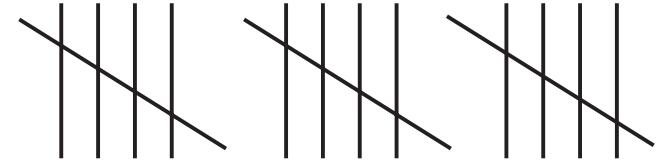
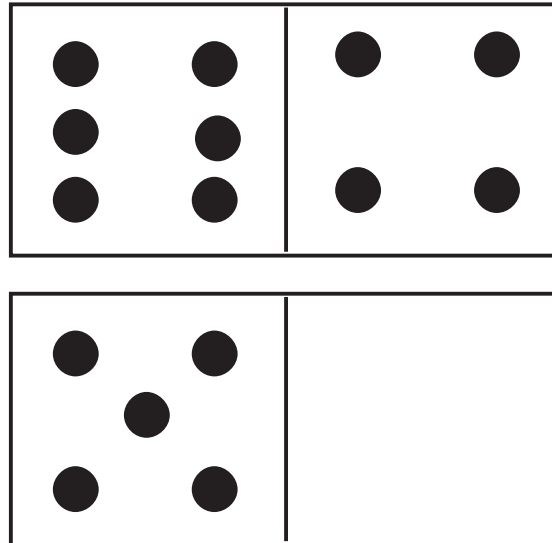
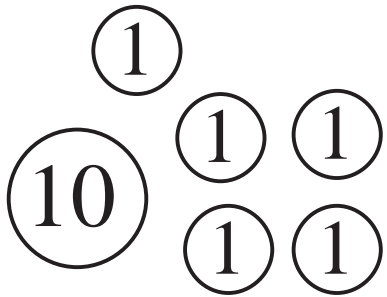
$$\underbrace{14 - 9}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}} <_2 \underbrace{14 - \square}_{\begin{array}{|c|c|} \hline & \\ \hline \end{array}}$$



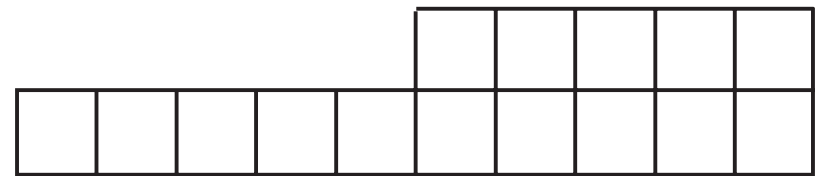
3	5		1
	4		
2			5
8	3		

# 15

# fifteen



# XV





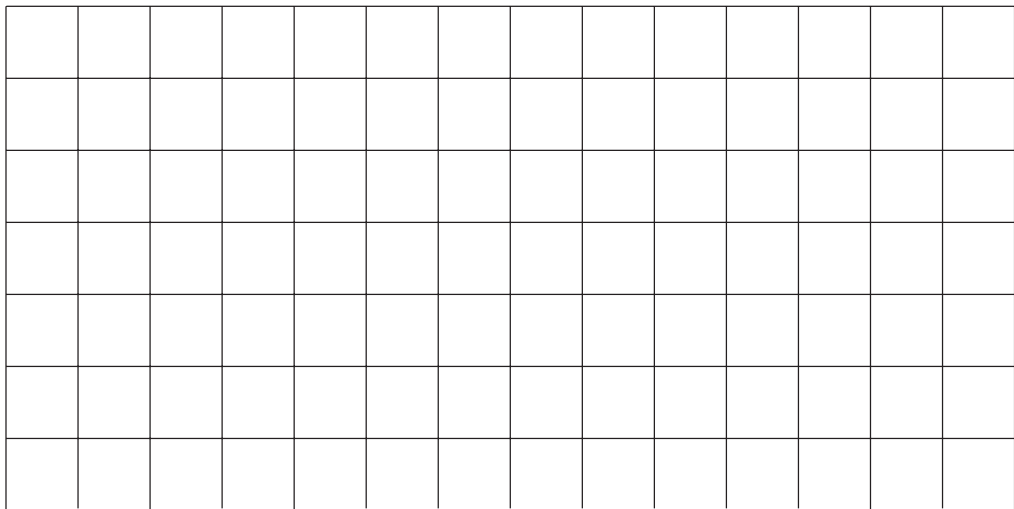
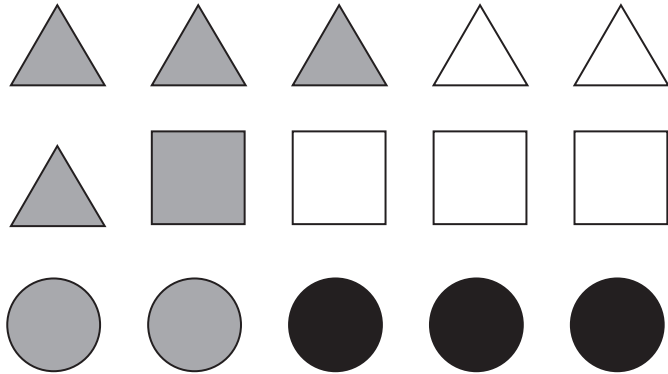
$a$	+	$b$	=		
-----	---	-----	---	--	--

$a$	=				
-----	---	--	--	--	--

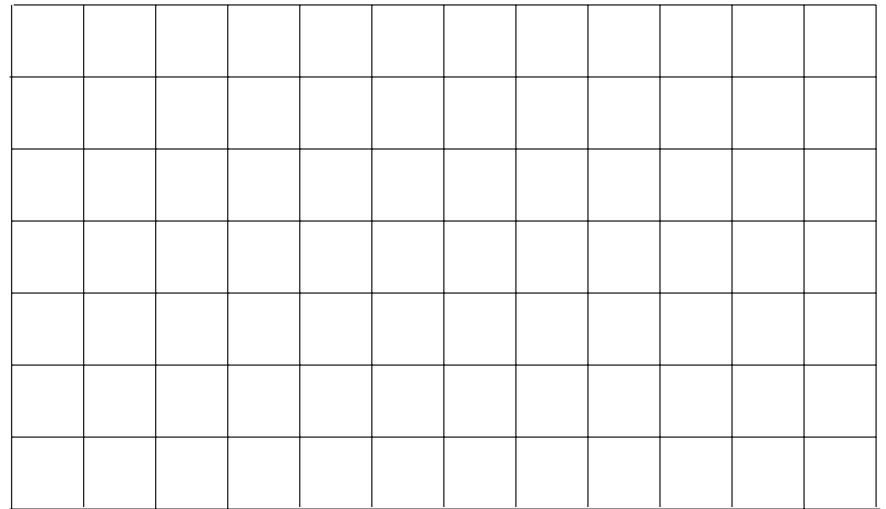
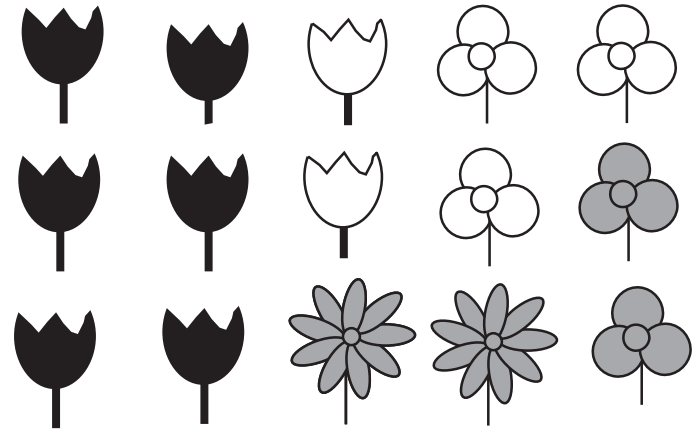
$b$	=				
-----	---	--	--	--	--

$a$	2		7			15		9	6	0				12	8	
$b$	13	10		4	1		2				14	11	5			12

a)



b)





10													

A 10x10 grid with a solid border for the top 5 rows and a dashed border for the bottom 5 rows. The number 10 is written in the top-left cell of the solid grid.

$10 + 5 = 15$
$9 + 1 + 5 = 9 + 6 = 15$
$8 + 2 + 5 = 8 + 7 = 15$

A vertical column of 9 rectangular boxes. The first three boxes contain the equations:  $10 + 5 = 15$ ,  $9 + 1 + 5 = 9 + 6 = 15$ , and  $8 + 2 + 5 = 8 + 7 = 15$ . The remaining six boxes are empty.

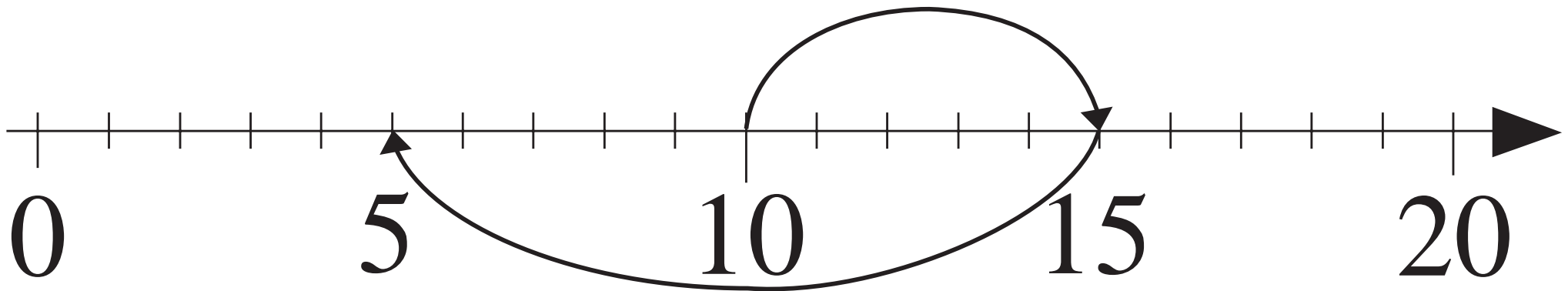


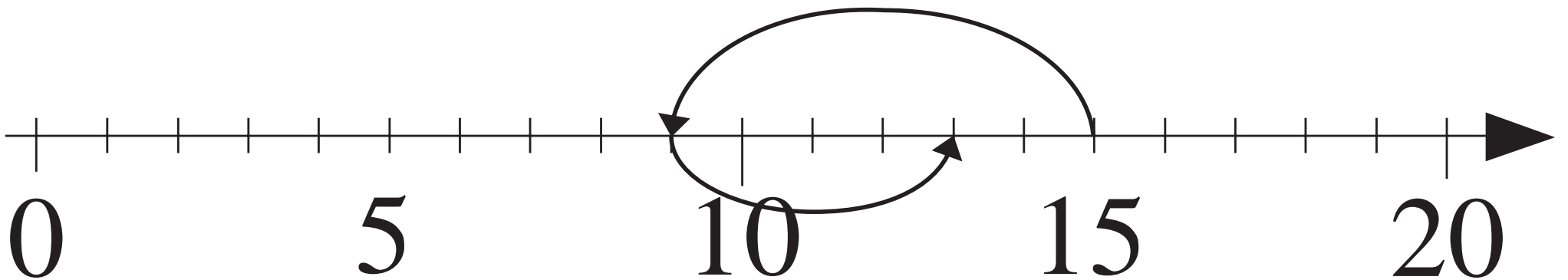
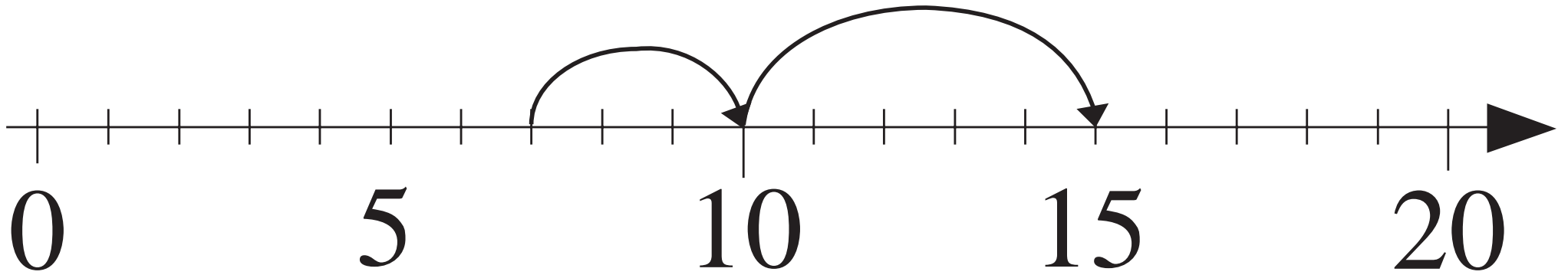
15

15														

<i>a</i>	2	5	2		6	2		8	5		3	8	7	4	4
<i>b</i>	3	5		5		4	6		1	5	3		7		5
<i>c</i>	10		2	7	2		3	3		8		1		4	

LP 128/5





$$15 - 10 + 5 =$$

$$15 - 6 + 4 =$$

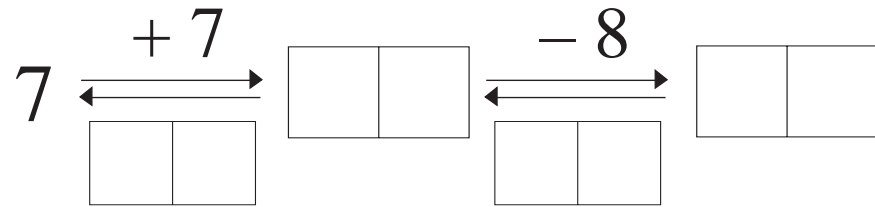
$$10 + 5 - 10 =$$

$$7 + 8 =$$

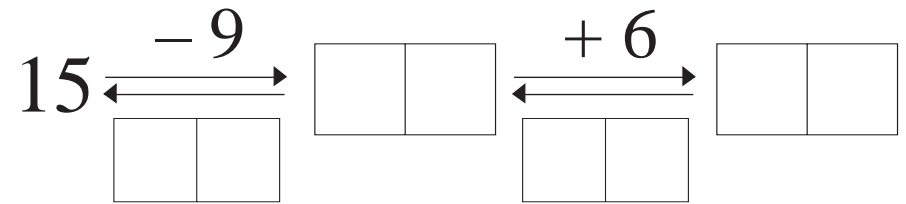
$$7 + 3 + 5 =$$

$$9 + 4 - 6 =$$

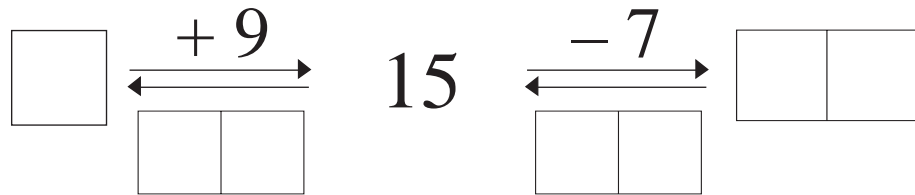
a)



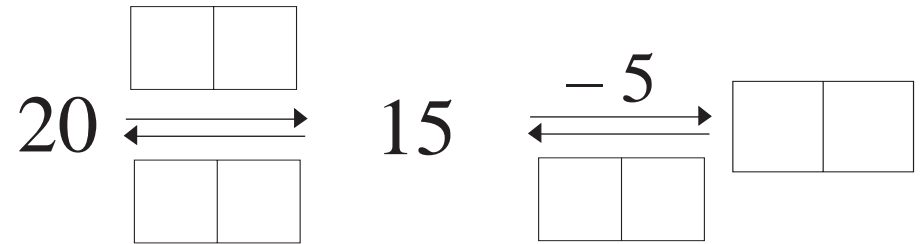
b)



c)



d)



a)

$$\underbrace{7 + \square}_{\square \square} < \underbrace{7 + 8}_{\square \square}$$

b)


$$\underbrace{10 - 5}_{\square \square} < \underbrace{\square \square - 5}_{\square \square}$$


c)

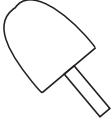
$$\underbrace{9 + \square}_{\square \square} = \underbrace{7 + 8}_{\square \square}$$

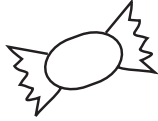
d)

$$\underbrace{15 - 7}_{\square \square} > \underbrace{15 - \square}_{\square \square}$$

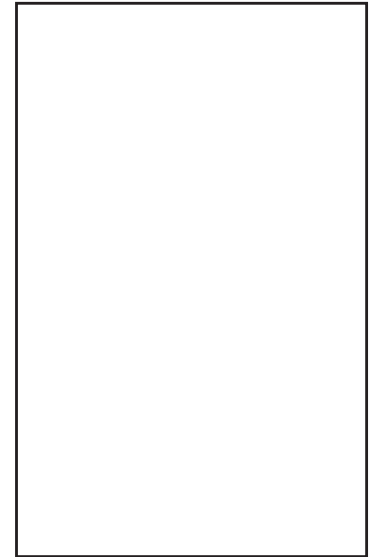
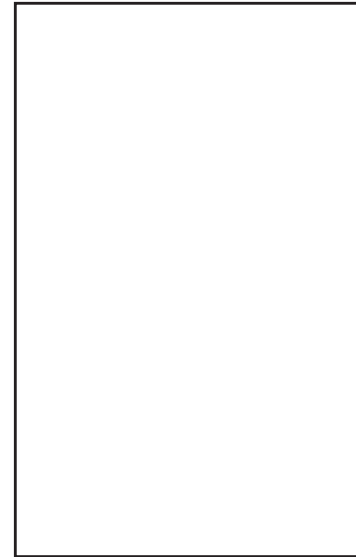
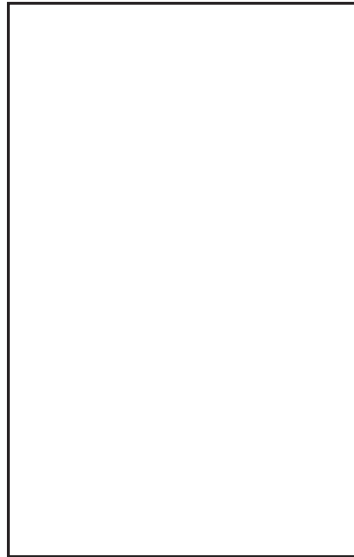
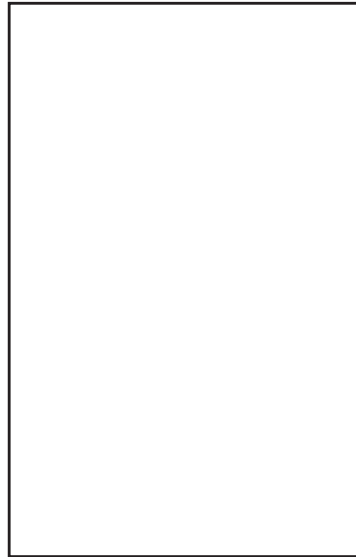
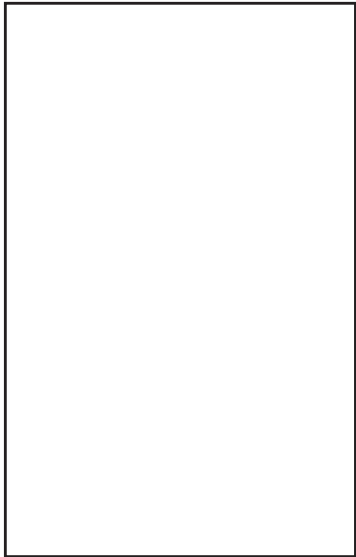
 = 7p

 = 6p

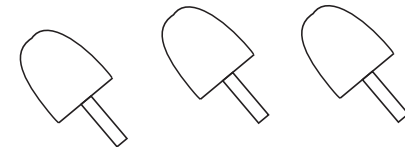
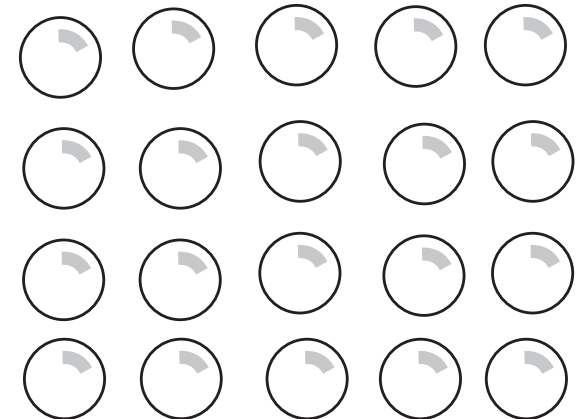
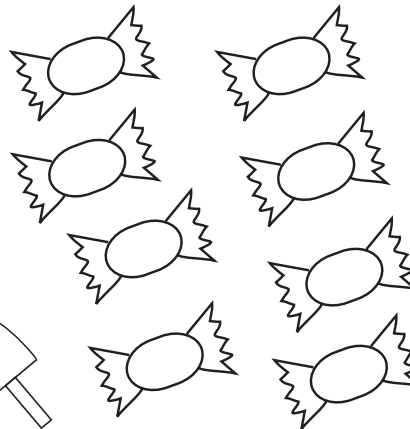
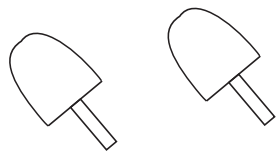
 = 3p

 = 2p

 = 1p



LP 131/7a



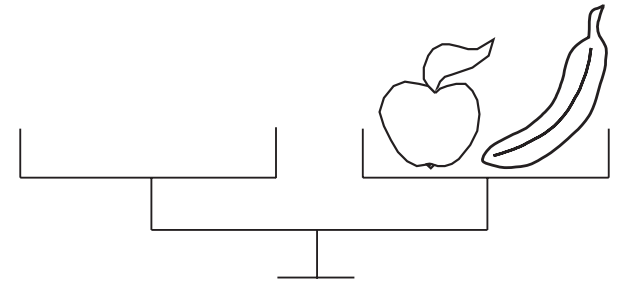
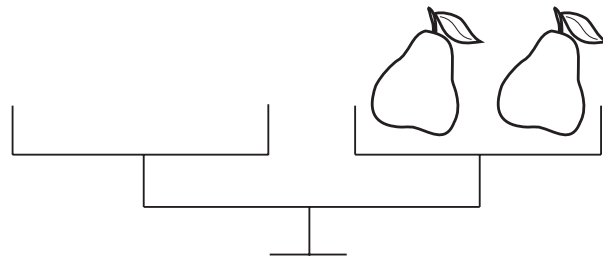
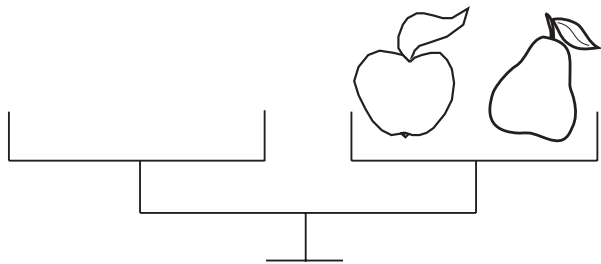
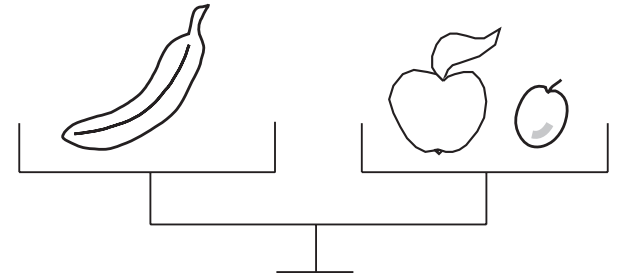
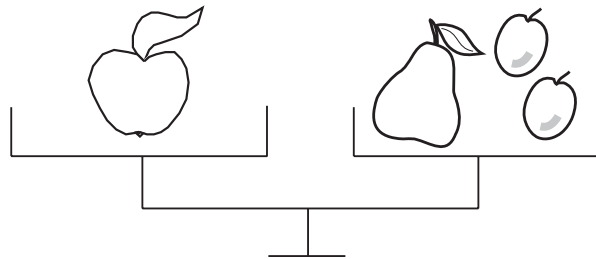
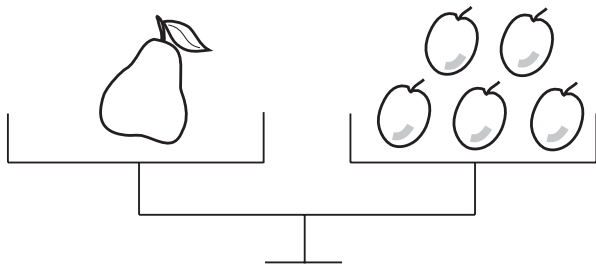
 LP 131/7b

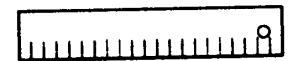
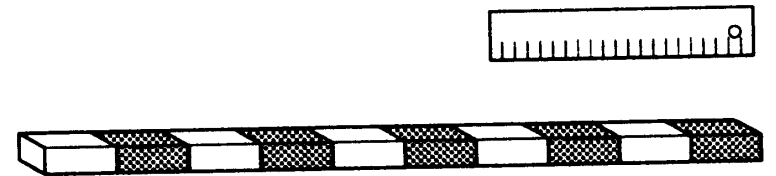
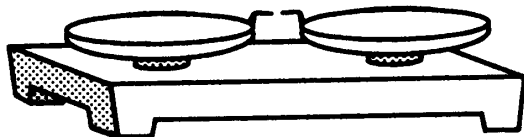
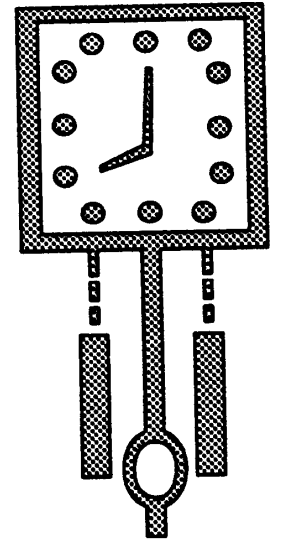
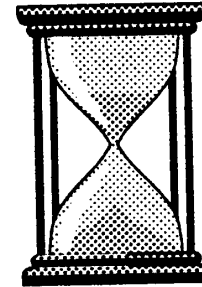
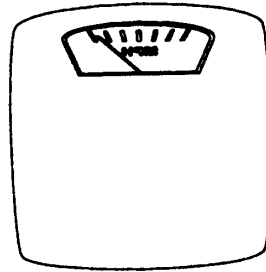
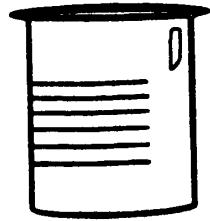
a)

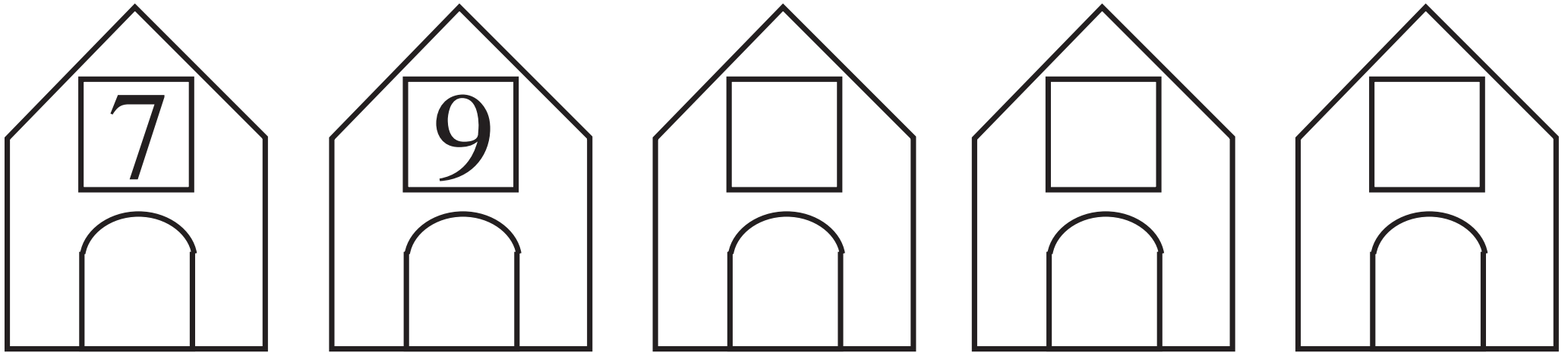
<b>5</b>	<b>11</b>		
<b>6</b>			
<b>7</b>			
<b>+</b>	<b>6</b>	<b>7</b>	<b>8</b>

b)

<b>3</b>			<b>8</b>
<b>4</b>		<b>14</b>	
<b>5</b>	<b>12</b>		
<b>+</b>	<b>7</b>		

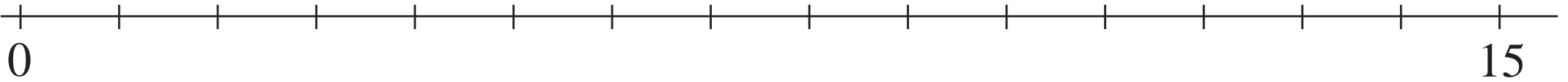
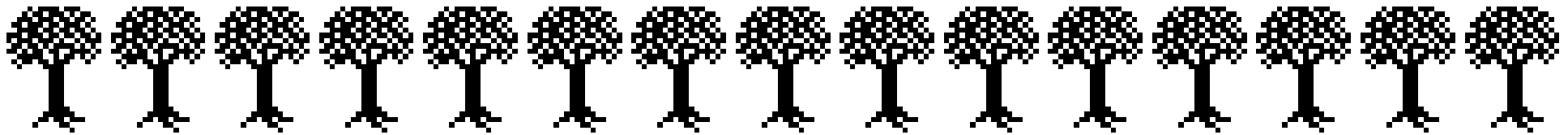




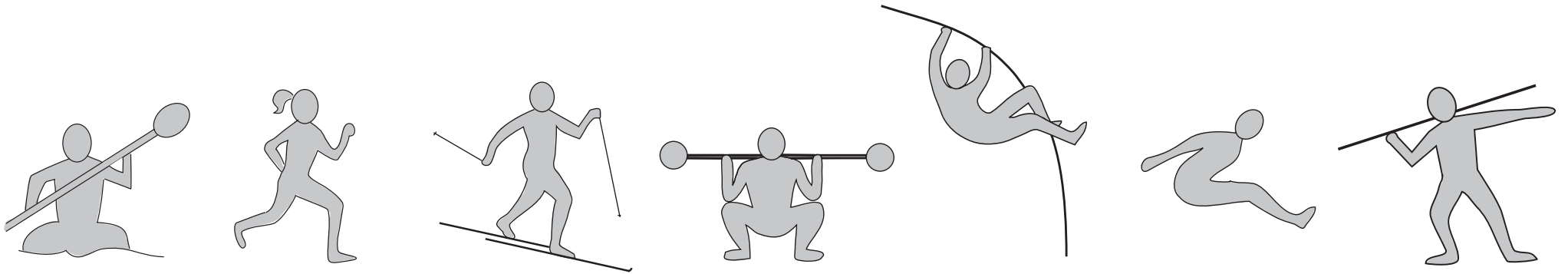


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LP 133/5



Mass

Time

Distance

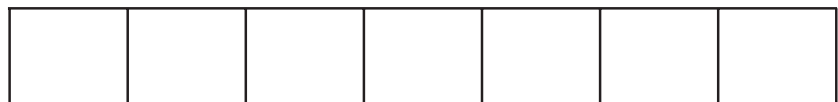
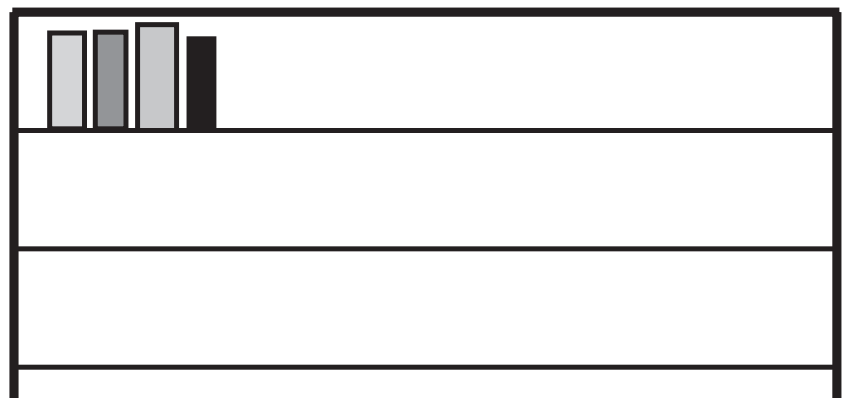
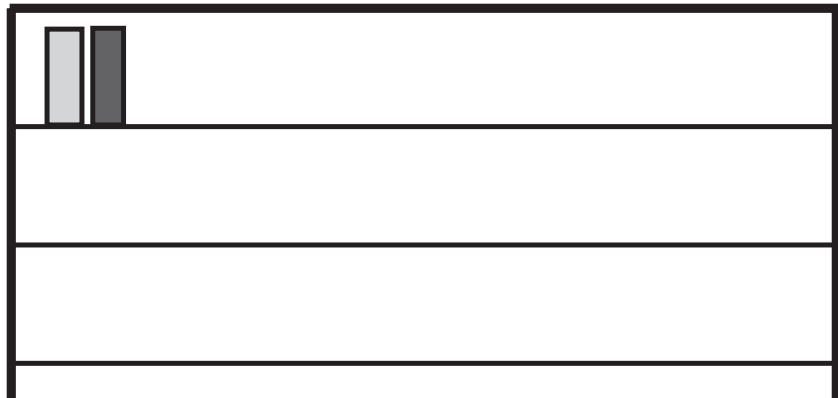
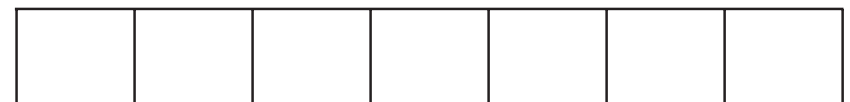
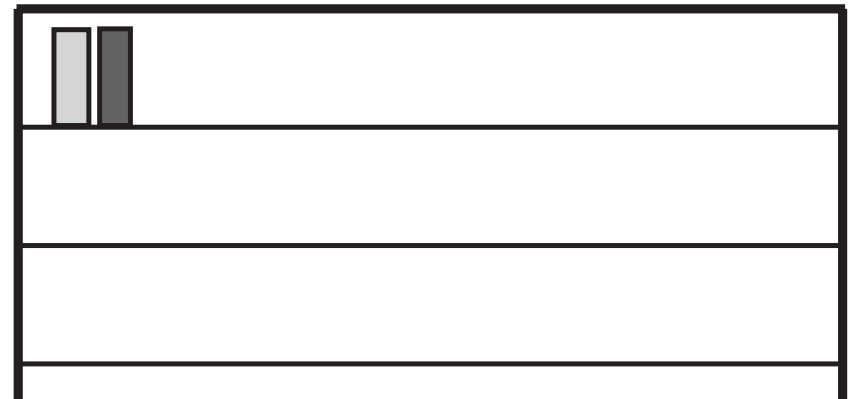
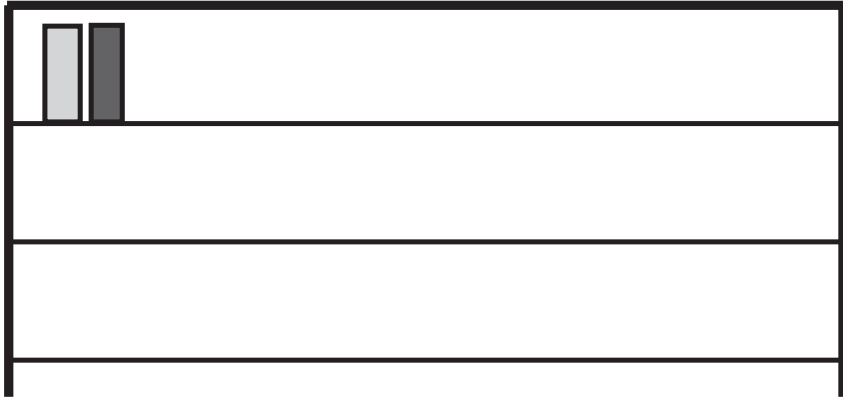


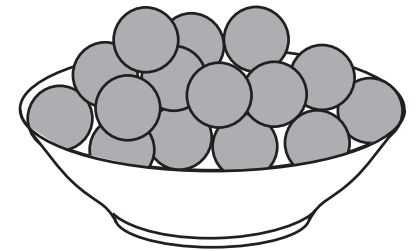


10														

A 10x15 grid with a solid border for the top four rows and a dashed border for the bottom eleven rows. The number '10' is written in the top-left cell of the solid grid.

$10 + 6 = 16$
$9 + 1 + 6 = 9 + 7 = 16$
$8 + 2 + 6 = 8 + 8 = 16$





Jeremy									
Rachel									
Father									

16															

16  $\xrightarrow{\text{is twice}}$  
  
  $\xleftarrow{\text{is half of}}$  16

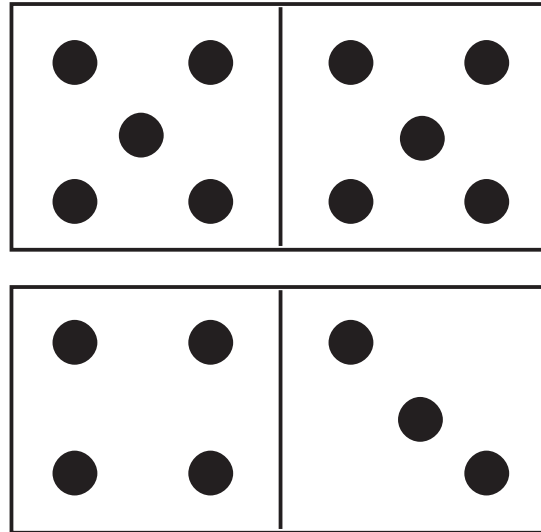
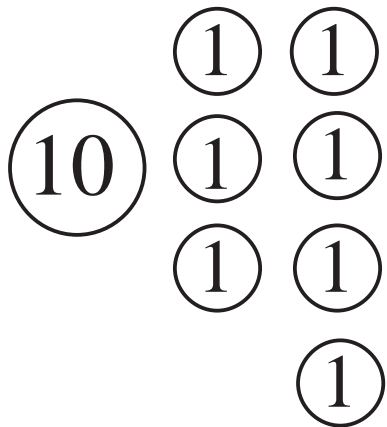
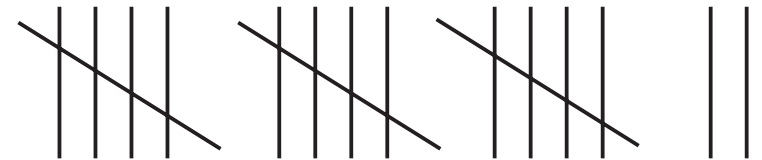
$\xrightarrow{\text{is twice}}$  2
   
 2  $\xleftarrow{\text{is half of}}$

2  $\xrightarrow{\text{is twice}}$  
  
  $\xleftarrow{\text{is half of}}$  2

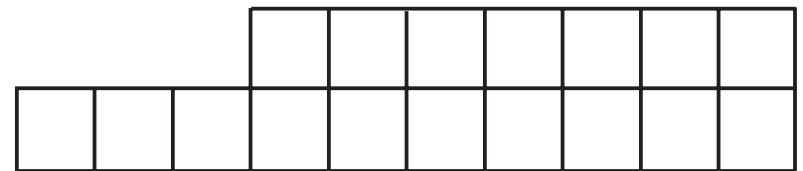
$\xrightarrow{\text{is twice}}$  4
   
 4  $\xleftarrow{\text{is half of}}$

17

seventeen



XVII







Anne	0	1											
Vicky	5												
A + V													

LP 138/5

$$a + b = \boxed{\phantom{00}} \boxed{\phantom{00}} \quad \boxed{\phantom{000000}} \quad \boxed{\phantom{0000000000}}$$

<i>a</i>	17			3	14	5		13	12		16	6	2		7		8	9
<i>b</i>	0	16	2				17			13				6		7		

LP 138/7

$\textcircled{10}$						
$\textcircled{1}$						
$\textcircled{1}$						
1	2	+		=	1	6

$\textcircled{5}$						
$\textcircled{5}$						
$\textcircled{5}$						
$\textcircled{1}$						

$\textcircled{2}$						
$\textcircled{2}$						
$\textcircled{2}$						
$\textcircled{2}$						

$\textcircled{5}$						
$\textcircled{1}$						

$\textcircled{2}$						
$\textcircled{1}$						

$\textcircled{2}$						
$\textcircled{2}$						

