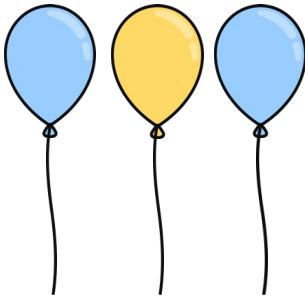


Fact families



Using the pictures, create a fact family of eight number sentences.

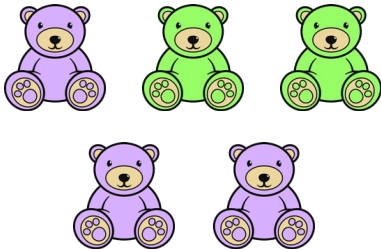
a



$$\begin{array}{rcl} 2 & + & 1 = \square \\ \square & + & \square = \square \\ 3 & - & 2 = \square \\ \square & - & \square = \square \end{array}$$

$$\begin{array}{rcl} \square & = & 2 + 1 \\ \square & = & \square + \square \\ \square & = & 3 - 2 \\ \square & = & \square - \square \end{array}$$

b



$$\begin{array}{rcl} 3 & + & 2 = \square \\ \square & + & \square = \square \\ 5 & - & 3 = \square \\ \square & - & \square = \square \end{array}$$

$$\begin{array}{rcl} \square & = & 3 + 2 \\ \square & = & \square + \square \\ \square & = & 5 - 3 \\ \square & = & \square - \square \end{array}$$

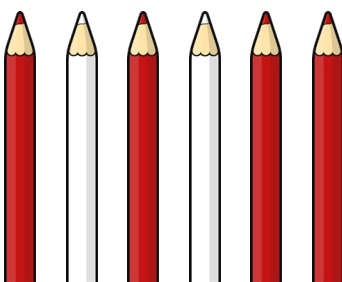
c



$$\begin{array}{rcl} 1 & + & 3 = \square \\ \square & + & \square = \square \\ 4 & - & 1 = \square \\ \square & - & \square = \square \end{array}$$

$$\begin{array}{rcl} \square & = & 1 + 3 \\ \square & = & \square + \square \\ \square & = & 4 - 1 \\ \square & = & \square - \square \end{array}$$

d



$$\begin{array}{rcl} 4 & + & 2 = \square \\ \square & + & \square = \square \\ 6 & - & 4 = \square \\ \square & - & \square = \square \end{array}$$

$$\begin{array}{rcl} \square & = & 4 + 2 \\ \square & = & \square + \square \\ \square & = & 6 - 4 \\ \square & = & \square - \square \end{array}$$

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

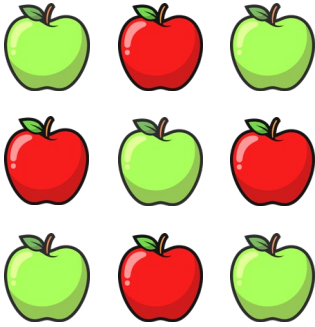
a	$\begin{array}{rcl} 3 & + & 1 = \square \\ \square & + & \square = \square \\ 4 & - & 3 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 3 + 1 \\ \square & = & \square + \square \\ \square & = & 4 - 3 \\ \square & = & \square - \square \end{array}$
b	$\begin{array}{rcl} 1 & + & 5 = \square \\ \square & + & \square = \square \\ 6 & - & 1 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 1 + 5 \\ \square & = & \square + \square \\ \square & = & 6 - 1 \\ \square & = & \square - \square \end{array}$
c	$\begin{array}{rcl} 1 & + & 2 = \square \\ \square & + & \square = \square \\ 3 & - & 1 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 1 + 2 \\ \square & = & \square + \square \\ \square & = & 3 - 1 \\ \square & = & \square - \square \end{array}$
d	$\begin{array}{rcl} 3 & + & 2 = \square \\ \square & + & \square = \square \\ 5 & - & 3 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 3 + 2 \\ \square & = & \square + \square \\ \square & = & 5 - 3 \\ \square & = & \square - \square \end{array}$

Fact families



Using the pictures, create a fact family of eight number sentences.

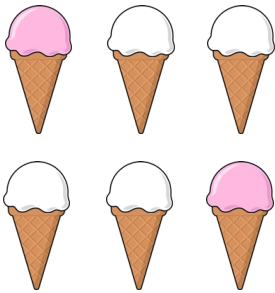
a



5	+	4	=	
	+		=	
9	-	5	=	
	-		=	

	=	5	+	4
	=		+	
	=	9	-	5
	=		-	

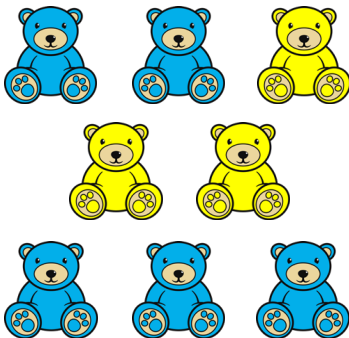
b



2	+	4	=	
	+		=	
6	-	2	=	
	-		=	

	=	2	+	4
	=		+	
	=	6	-	2
	=		-	

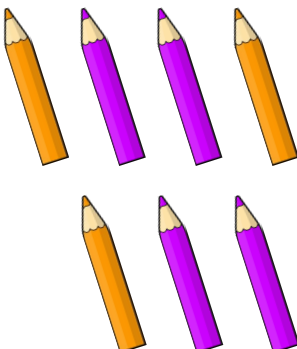
c



5	+	3	=	
	+		=	
8	-	5	=	
	-		=	

	=	5	+	3
	=		+	
	=	8	-	5
	=		-	

d



3	+	4	=	
	+		=	
7	-	3	=	
	-		=	

	=	3	+	4
	=		+	
	=	7	-	3
	=		-	

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

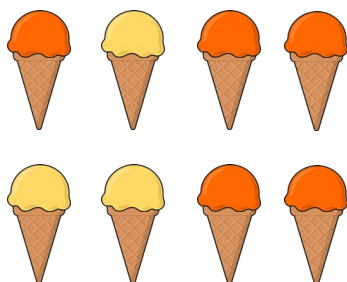
a	$\begin{array}{rcl} 2 & + & 6 = \square \\ \square & + & \square = \square \\ 8 & - & 2 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 2 + 6 \\ \square & = & \square + \square \\ \square & = & 8 - 2 \\ \square & = & \square - \square \end{array}$
b	$\begin{array}{rcl} 4 & + & 2 = \square \\ \square & + & \square = \square \\ 6 & - & 4 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 4 + 2 \\ \square & = & \square + \square \\ \square & = & 6 - 4 \\ \square & = & \square - \square \end{array}$
c	$\begin{array}{rcl} 3 & + & 4 = \square \\ \square & + & \square = \square \\ 7 & - & 3 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 3 + 4 \\ \square & = & \square + \square \\ \square & = & 7 - 3 \\ \square & = & \square - \square \end{array}$
d	$\begin{array}{rcl} 3 & + & 6 = \square \\ \square & + & \square = \square \\ 9 & - & 3 = \square \\ \square & - & \square = \square \end{array}$	$\begin{array}{rcl} \square & = & 3 + 6 \\ \square & = & \square + \square \\ \square & = & 9 - 3 \\ \square & = & \square - \square \end{array}$

Fact families



Using the pictures, create a fact family of eight number sentences.

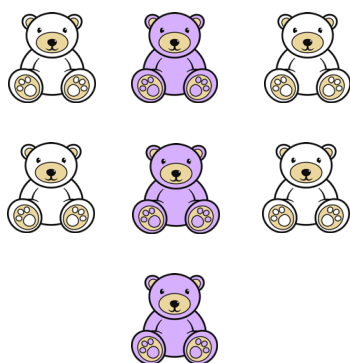
a



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

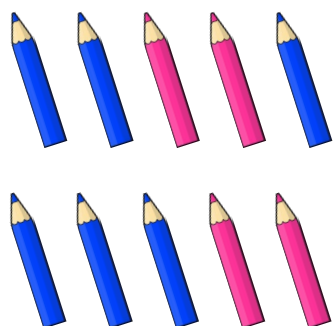
b



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

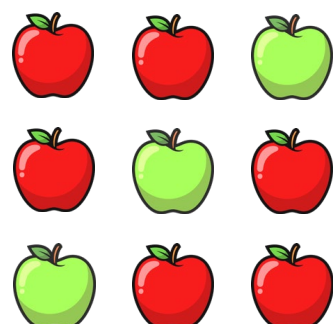
c



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

d



	+		=	
	+		=	
	-		=	
	-		=	

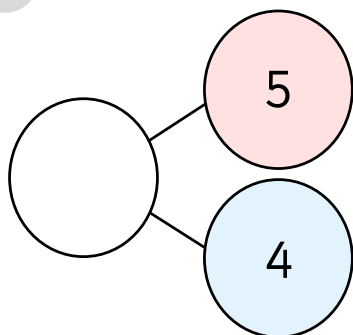
	=		+	
	=		+	
	=		-	
	=		-	

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

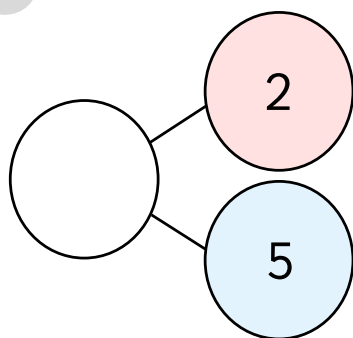
a



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

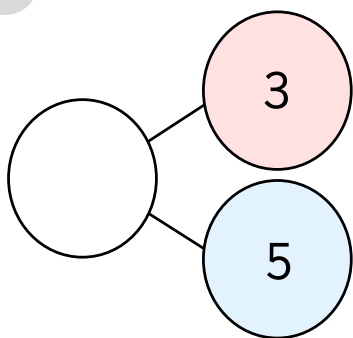
b



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

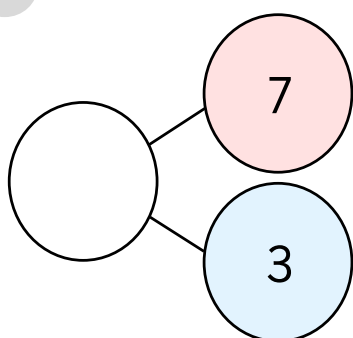
c



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

d



	+		=	
	+		=	
	-		=	
	-		=	

	=		+	
	=		+	
	=		-	
	=		-	

Answers

To avoid wasting paper & ink,
please do not print this page.

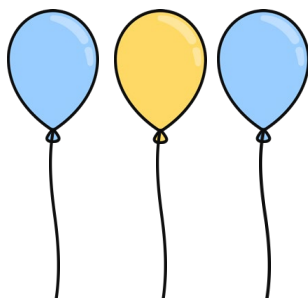


Fact families



Using the pictures, create a fact family of eight number sentences.

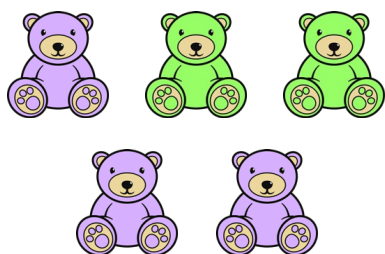
a



$$\begin{array}{rcl} 2 & + & 1 = 3 \\ 1 & + & 2 = 3 \\ 3 & - & 2 = 1 \\ 3 & - & 1 = 2 \end{array}$$

$$\begin{array}{rcl} 3 & = & 2 + 1 \\ 3 & = & 1 + 2 \\ 1 & = & 3 - 2 \\ 2 & = & 3 - 1 \end{array}$$

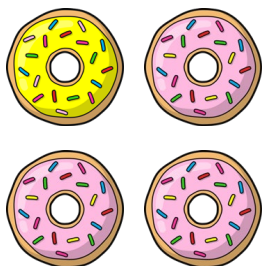
b



$$\begin{array}{rcl} 3 & + & 2 = 5 \\ 2 & + & 3 = 5 \\ 5 & - & 3 = 2 \\ 5 & - & 2 = 3 \end{array}$$

$$\begin{array}{rcl} 5 & = & 3 + 2 \\ 5 & = & 2 + 3 \\ 2 & = & 5 - 3 \\ 3 & = & 5 - 2 \end{array}$$

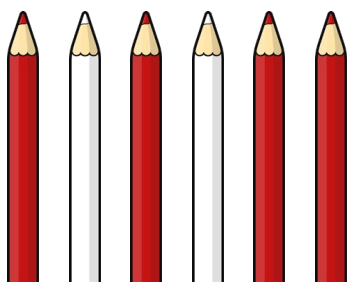
c



$$\begin{array}{rcl} 1 & + & 3 = 4 \\ 3 & + & 1 = 4 \\ 4 & - & 1 = 3 \\ 4 & - & 3 = 1 \end{array}$$

$$\begin{array}{rcl} 4 & = & 1 + 3 \\ 4 & = & 3 + 1 \\ 3 & = & 4 - 1 \\ 1 & = & 4 - 3 \end{array}$$

d



$$\begin{array}{rcl} 4 & + & 2 = 6 \\ 2 & + & 4 = 6 \\ 6 & - & 4 = 2 \\ 6 & - & 2 = 4 \end{array}$$

$$\begin{array}{rcl} 6 & = & 4 + 2 \\ 6 & = & 2 + 4 \\ 2 & = & 6 - 4 \\ 4 & = & 6 - 2 \end{array}$$

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

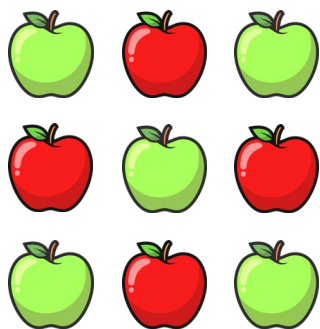
a	$\begin{array}{rcl} 3 & + & 1 = 4 \\ 1 & + & 3 = 4 \\ 4 & - & 3 = 1 \\ 4 & - & 1 = 3 \end{array}$	$\begin{array}{rcl} 4 & = & 3 + 1 \\ 4 & = & 1 + 3 \\ 1 & = & 4 - 3 \\ 3 & = & 4 - 1 \end{array}$
b	$\begin{array}{rcl} 1 & + & 5 = 6 \\ 5 & + & 1 = 6 \\ 6 & - & 1 = 5 \\ 6 & - & 5 = 1 \end{array}$	$\begin{array}{rcl} 6 & = & 1 + 5 \\ 6 & = & 5 + 1 \\ 5 & = & 6 - 1 \\ 1 & = & 6 - 5 \end{array}$
c	$\begin{array}{rcl} 1 & + & 2 = 3 \\ 2 & + & 1 = 3 \\ 3 & - & 1 = 2 \\ 3 & - & 2 = 1 \end{array}$	$\begin{array}{rcl} 3 & = & 1 + 2 \\ 3 & = & 2 + 1 \\ 2 & = & 3 - 1 \\ 1 & = & 3 - 2 \end{array}$
d	$\begin{array}{rcl} 3 & + & 2 = 5 \\ 2 & + & 3 = 5 \\ 5 & - & 3 = 2 \\ 5 & - & 2 = 3 \end{array}$	$\begin{array}{rcl} 5 & = & 3 + 2 \\ 5 & = & 2 + 3 \\ 2 & = & 5 - 3 \\ 3 & = & 5 - 2 \end{array}$

Fact families



Using the pictures, create a fact family of eight number sentences.

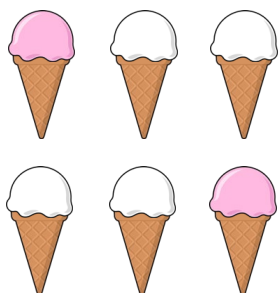
a



$$\begin{array}{rcl} 5 & + & 4 = 9 \\ 4 & + & 5 = 9 \\ 9 & - & 5 = 4 \\ 9 & - & 4 = 5 \end{array}$$

$$\begin{array}{rcl} 9 & = & 5 + 4 \\ 9 & = & 4 + 5 \\ 4 & = & 9 - 5 \\ 5 & = & 9 - 4 \end{array}$$

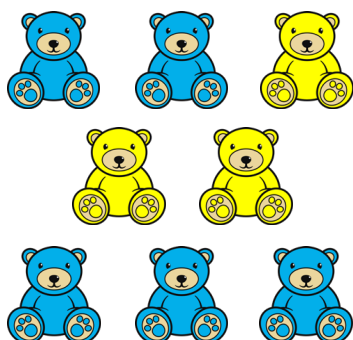
b



$$\begin{array}{rcl} 2 & + & 4 = 6 \\ 4 & + & 2 = 6 \\ 6 & - & 2 = 4 \\ 6 & - & 4 = 2 \end{array}$$

$$\begin{array}{rcl} 6 & = & 2 + 4 \\ 6 & = & 4 + 2 \\ 4 & = & 6 - 2 \\ 2 & = & 6 - 4 \end{array}$$

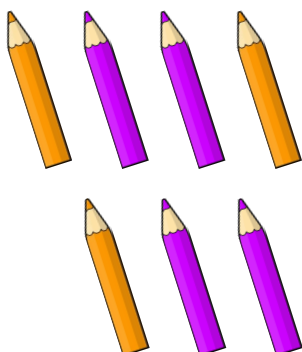
c



$$\begin{array}{rcl} 5 & + & 3 = 8 \\ 3 & + & 5 = 8 \\ 8 & - & 5 = 3 \\ 8 & - & 3 = 5 \end{array}$$

$$\begin{array}{rcl} 8 & = & 5 + 3 \\ 8 & = & 3 + 5 \\ 3 & = & 8 - 5 \\ 5 & = & 8 - 3 \end{array}$$

d



$$\begin{array}{rcl} 3 & + & 4 = 7 \\ 4 & + & 3 = 7 \\ 7 & - & 3 = 4 \\ 7 & - & 4 = 3 \end{array}$$

$$\begin{array}{rcl} 7 & = & 3 + 4 \\ 7 & = & 4 + 3 \\ 4 & = & 7 - 3 \\ 3 & = & 7 - 4 \end{array}$$

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

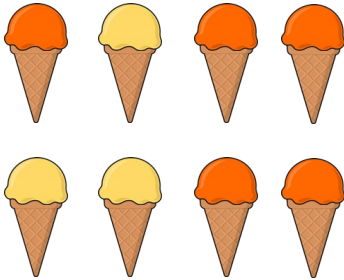
a	$\begin{array}{rcl} 2 & + & 6 = 8 \\ 6 & + & 2 = 8 \\ 8 & - & 2 = 6 \\ 8 & - & 6 = 2 \end{array}$	$\begin{array}{rcl} 8 & = & 2 + 6 \\ 8 & = & 6 + 2 \\ 6 & = & 8 - 2 \\ 2 & = & 8 - 6 \end{array}$
b	$\begin{array}{rcl} 4 & + & 2 = 6 \\ 2 & + & 4 = 6 \\ 6 & - & 4 = 2 \\ 6 & - & 2 = 4 \end{array}$	$\begin{array}{rcl} 6 & = & 4 + 2 \\ 6 & = & 2 + 4 \\ 2 & = & 6 - 4 \\ 4 & = & 6 - 2 \end{array}$
c	$\begin{array}{rcl} 3 & + & 4 = 7 \\ 4 & + & 3 = 7 \\ 7 & - & 3 = 4 \\ 7 & - & 4 = 3 \end{array}$	$\begin{array}{rcl} 7 & = & 3 + 4 \\ 7 & = & 4 + 3 \\ 4 & = & 7 - 3 \\ 3 & = & 7 - 4 \end{array}$
d	$\begin{array}{rcl} 3 & + & 6 = 9 \\ 6 & + & 3 = 9 \\ 9 & - & 3 = 6 \\ 9 & - & 6 = 3 \end{array}$	$\begin{array}{rcl} 9 & = & 3 + 6 \\ 9 & = & 6 + 3 \\ 6 & = & 9 - 3 \\ 3 & = & 9 - 6 \end{array}$

Fact families



Using the pictures, create a fact family of eight number sentences.

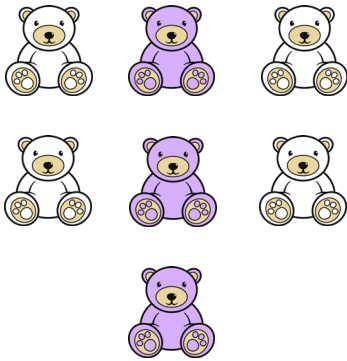
a



$$\begin{array}{rcl} 5 & + & 3 = 8 \\ 3 & + & 5 = 8 \\ 8 & - & 5 = 3 \\ 8 & - & 3 = 5 \end{array}$$

$$\begin{array}{rcl} 8 & = & 5 + 3 \\ 8 & = & 3 + 5 \\ 3 & = & 8 - 5 \\ 5 & = & 8 - 3 \end{array}$$

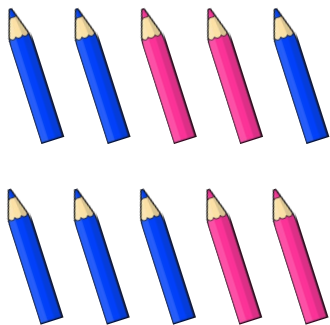
b



$$\begin{array}{rcl} 4 & + & 3 = 7 \\ 3 & + & 4 = 7 \\ 7 & - & 4 = 3 \\ 7 & - & 3 = 4 \end{array}$$

$$\begin{array}{rcl} 7 & = & 4 + 3 \\ 7 & = & 3 + 4 \\ 3 & = & 7 - 4 \\ 4 & = & 7 - 3 \end{array}$$

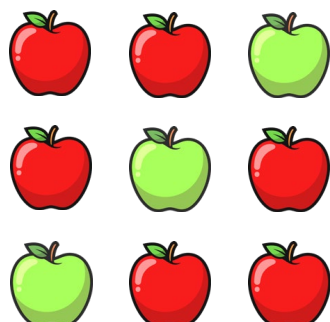
c



$$\begin{array}{rcl} 6 & + & 4 = 10 \\ 4 & + & 6 = 10 \\ 10 & - & 6 = 4 \\ 10 & - & 4 = 6 \end{array}$$

$$\begin{array}{rcl} 10 & = & 6 + 4 \\ 10 & = & 4 + 6 \\ 4 & = & 10 - 6 \\ 6 & = & 10 - 4 \end{array}$$

d



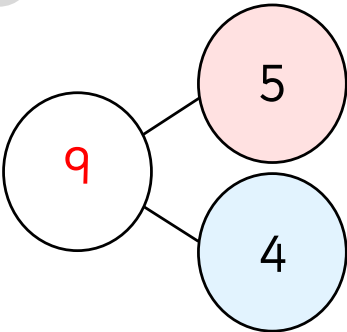
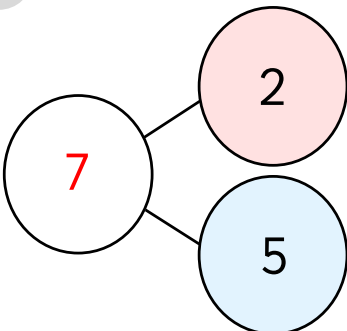
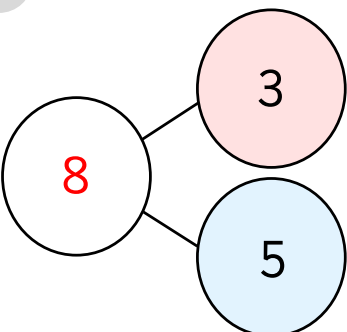
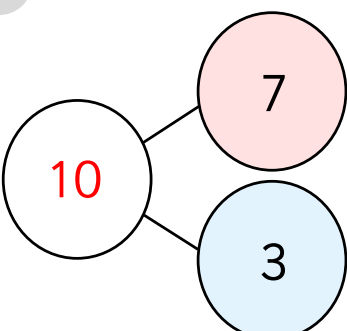
$$\begin{array}{rcl} 6 & + & 3 = 9 \\ 3 & + & 6 = 9 \\ 9 & - & 6 = 3 \\ 9 & - & 3 = 6 \end{array}$$

$$\begin{array}{rcl} 9 & = & 6 + 3 \\ 9 & = & 3 + 6 \\ 3 & = & 9 - 6 \\ 6 & = & 9 - 3 \end{array}$$

Fact families



Using the part-whole diagram, create a fact family of eight number sentences.

a 	$\begin{array}{rcl} 5 & + & 4 = 9 \\ 4 & + & 5 = 9 \\ 9 & - & 5 = 4 \\ 9 & - & 4 = 5 \end{array}$	$\begin{array}{rcl} 9 & = & 5 + 4 \\ 9 & = & 4 + 5 \\ 4 & = & 9 - 5 \\ 5 & = & 9 - 4 \end{array}$
b 	$\begin{array}{rcl} 5 & + & 2 = 7 \\ 2 & + & 5 = 7 \\ 7 & - & 2 = 5 \\ 7 & - & 5 = 2 \end{array}$	$\begin{array}{rcl} 7 & = & 2 + 5 \\ 7 & = & 5 + 2 \\ 2 & = & 7 - 5 \\ 5 & = & 7 - 2 \end{array}$
c 	$\begin{array}{rcl} 3 & + & 5 = 8 \\ 5 & + & 3 = 8 \\ 8 & - & 3 = 5 \\ 8 & - & 5 = 3 \end{array}$	$\begin{array}{rcl} 8 & = & 3 + 5 \\ 8 & = & 5 + 3 \\ 5 & = & 8 - 3 \\ 3 & = & 8 - 5 \end{array}$
d 	$\begin{array}{rcl} 7 & + & 3 = 10 \\ 3 & + & 7 = 10 \\ 10 & - & 7 = 3 \\ 10 & - & 3 = 7 \end{array}$	$\begin{array}{rcl} 10 & = & 7 + 3 \\ 10 & = & 3 + 7 \\ 3 & = & 10 - 7 \\ 7 & = & 10 - 3 \end{array}$