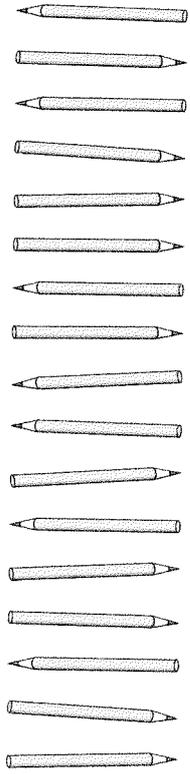


Count objects to 100 and represent white numbers in numerals and words

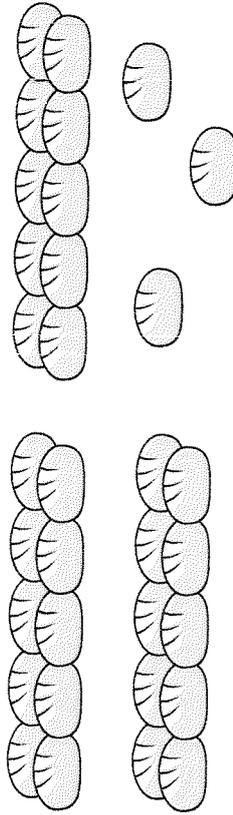
1 How many pencils are there?



There are pencils.



2 How many bread rolls are there?



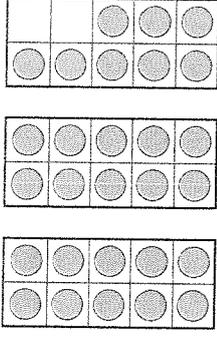
There are bread rolls.

How did you count them?



3 What number is represented?

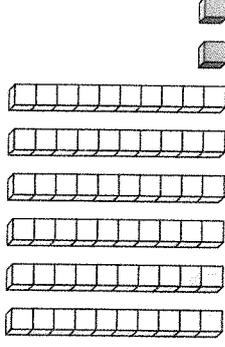
numerals



words _____

4 What number is represented?

numerals



words _____

5 Use base 10 to make the number 45
Draw the base 10



6 Write the numerals in words.

- a) _____
- b) _____
- c) _____
- d) _____

8 Complete the number tracks.

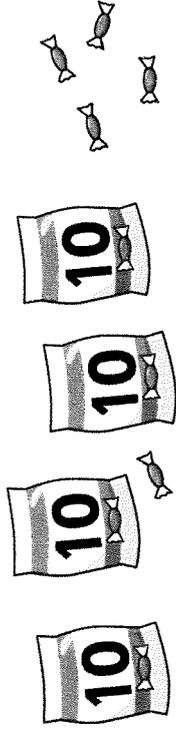
77	78						84	
----	----	--	--	--	--	--	----	--

71			68	67		65		
----	--	--	----	----	--	----	--	--

7 Write the words in numerals.

- a) twelve
- b) eighty
- c) one hundred
- d) nine
- e) twenty-seven
- f) fourteen

9 Eva has these sweets.



How many sweets does she have?

Eva has sweets.

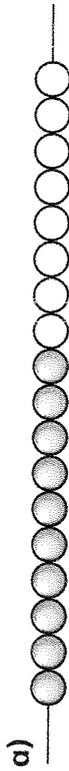
Eva's friend gives her some more sweets.
Now she has 52

How many sweets does Eva's friend give her?
Count to find out.

Eva's friend gives her sweets.

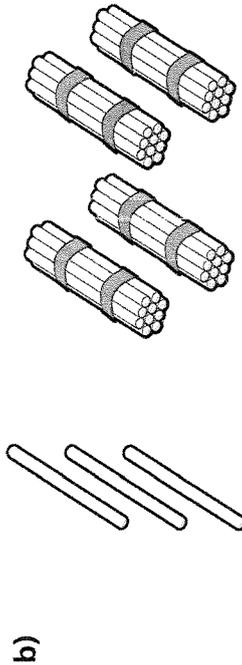


1 Complete the sentences to describe the number.



There is ten and ones.

The number is



There are tens and ones.

The number is

2 Complete the sentences.

a)

There are tens and ones.

The number is

b)

There are tens and ones.

The number is

c)

There are tens and ones.

The number is

d)

There are tens and ones.

The number is

How did you count the tens and ones?



3 Draw a representation of each number.
Complete the sentences.

a)

There is 1 ten and 5 ones.

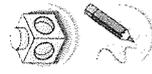
The number is

b)

There are tens

and ones.

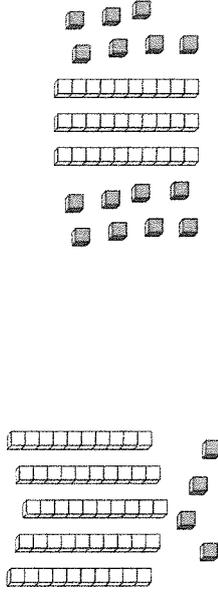
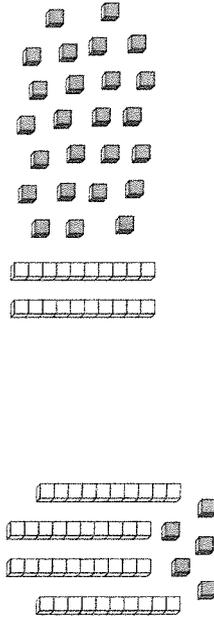
The number is 30



4 Use base 10 to represent the number 51 in two different ways. Draw your answer.

5

Rosie is using base 10 to make 45 in different ways.
Which picture does not represent 45?
Circle your answer.



Talk to a partner about the mistake Rosie has made.

6

Amir is thinking of a 2-digit number.
 There are 3 more tens than ones.
 There are 4 ones.

What number is Amir thinking of?

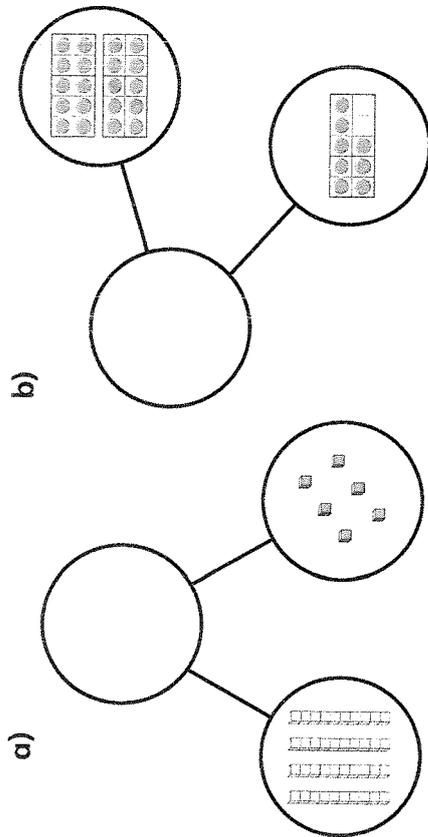
Amir is thinking of the number



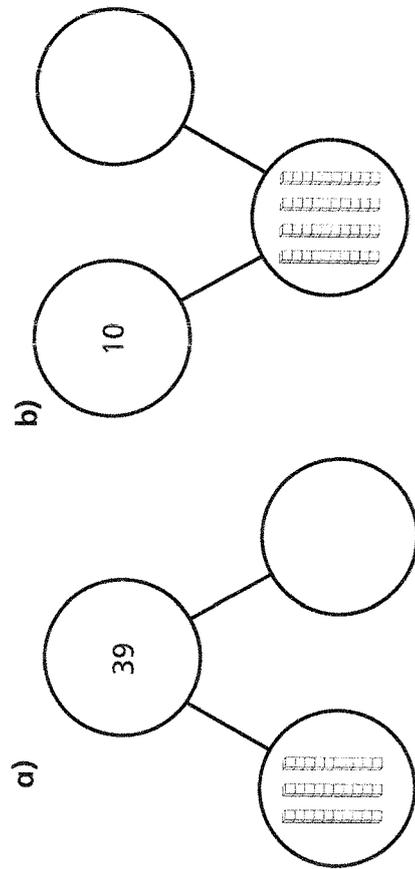
How many different ways can you represent Amir's number?

Tens and ones with a part-whole model

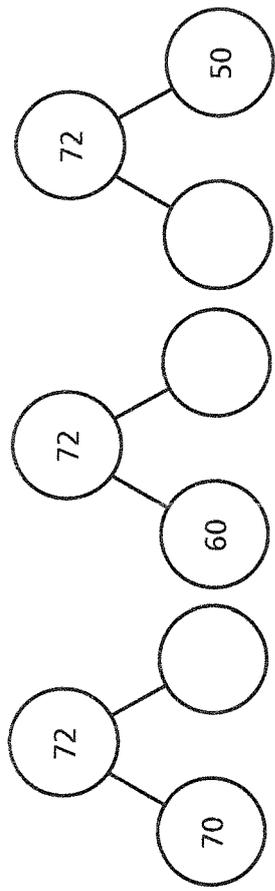
1 Write a numeral to complete the part-whole models.



2 Write a numeral to complete the part-whole models.



3 Complete the part-whole models.



What is the same and what is different about the part-whole models?

Complete the sentence for each part-whole model.

72 is made up of tens and ones.

72 is made up of tens and ones.

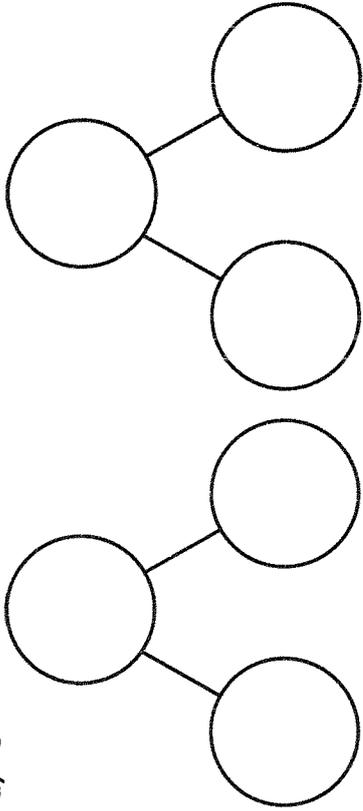
72 is made up of tens and ones.

How many other ways can you partition 72?

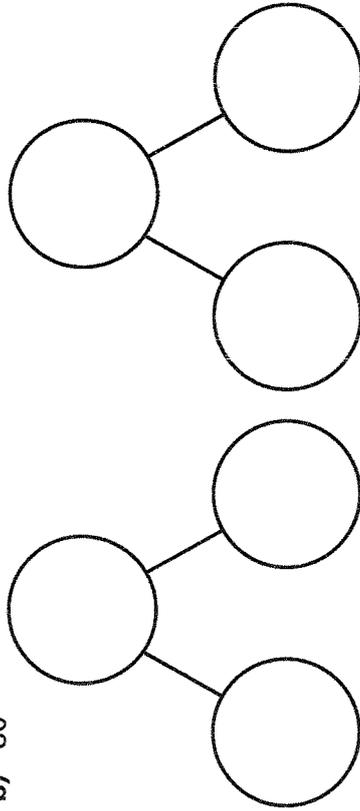


4 Represent each number in two different ways.
Fill in the part-whole models.

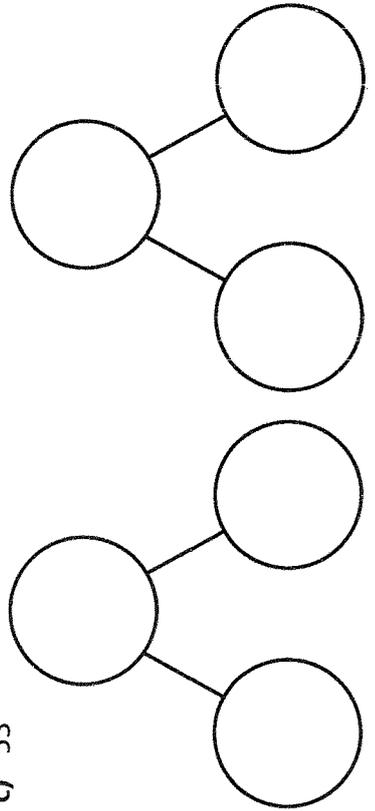
a) 9



b) 80



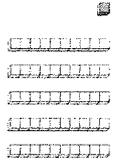
c) 53



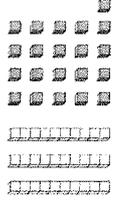
5 Annie and Teddy have each made a number.



Annie



Teddy



Complete the sentences to show that they have made the same number.

Annie's number has

tens and

ones.

It is

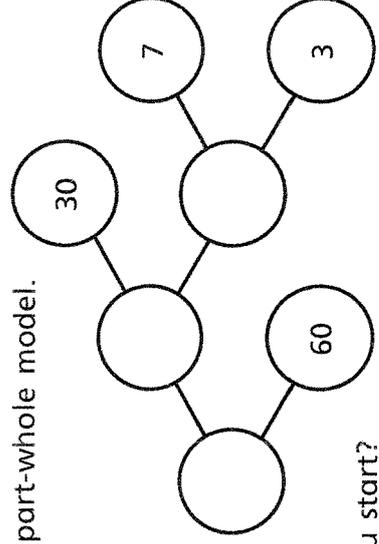
Teddy's number has

tens and

ones.

It is

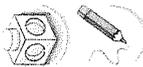
6 Complete the part-whole model.



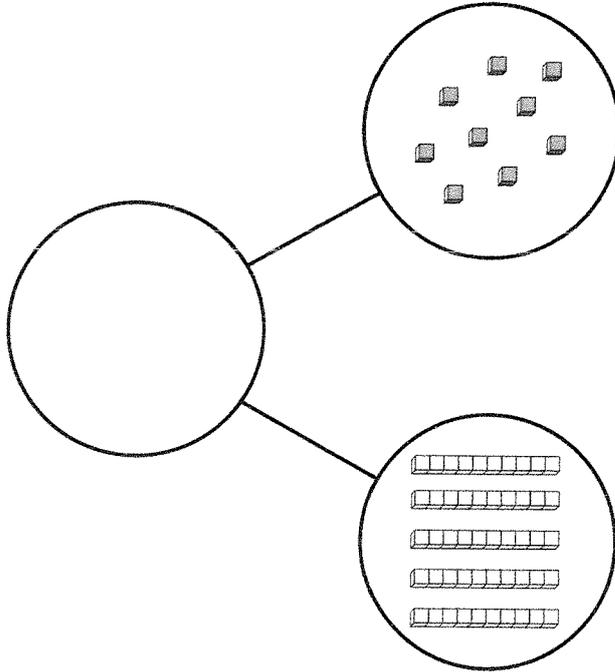
Where did you start?
Compare with a partner.



Tens and ones using addition



1 Draw base 10 to complete the part-whole model.



Complete the sentences.

There are tens and ones.

The whole is
 + =

2 Complete the sentences to describe each number.

- a) 39 has tens and ones.
- b) 70 has tens and ones.
- c) 12 has ten and ones.
- d) 56 has tens and ones.

3 Complete the number sentences to describe each number.

The first one has been done for you.

- a) $39 = 30 + 9$
- b) $70 = \text{[]} + \text{[]}$
- c) $12 = \text{[]} + \text{[]}$
- d) $56 = \text{[]} + \text{[]}$

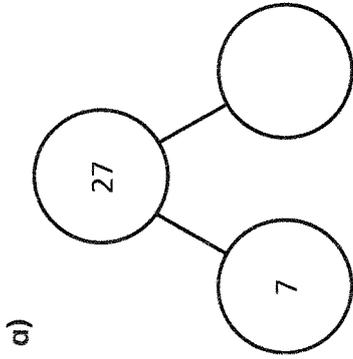
4 Dexter has 30 sweets and Dora has 28 sweets.

Represent the total number of sweets:

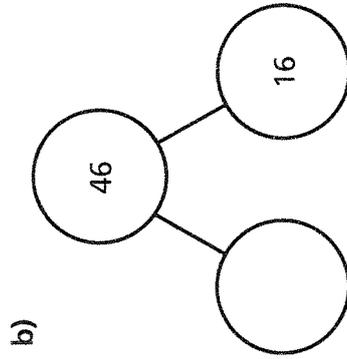
- using base 10
- as a part-whole model
- as a number sentence.

5 Complete the part-whole models.

Write four number sentences to match each part-whole model.



<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>
<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>



<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>
<input type="text"/>	=	<input type="text"/>	+	<input type="text"/>

6 Complete the number sentences.

- a) $35 = 30 + \square$ e) $19 + 20 = \square$
- b) $20 + \square = 29$ f) $67 = 50 + \square$
- c) $42 = 2 + \square$ g) $99 = \square + 39$
- d) $50 + 7 = \square$ h) $40 + 30 + \square = 81$

7 Annie thinks that $50 + 9 = 509$

Show that Annie is wrong.

How would you help Annie to get it right next time?

Talk about it with a partner.

8 Complete the number sentence.

$30 + \square = 20 + \square$

Compare your answer with a partner's answer.

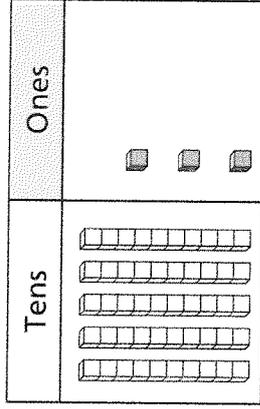
How many different ways can you complete the number sentence?



2 Complete the place value charts to represent the number 47

1 Complete the sentences.

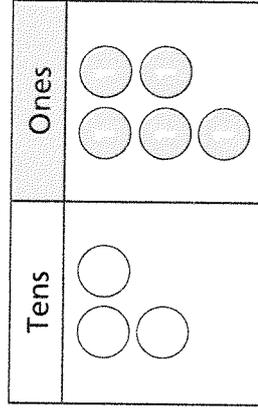
a)



There are tens
and ones.

The number represented is

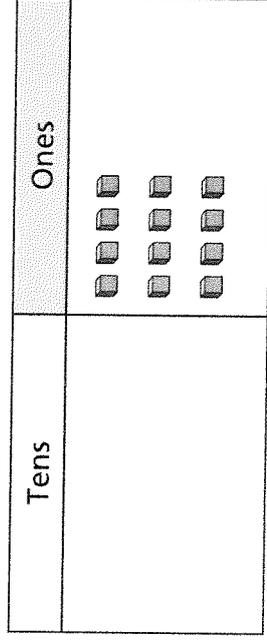
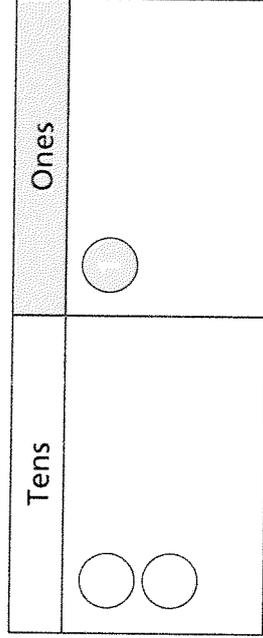
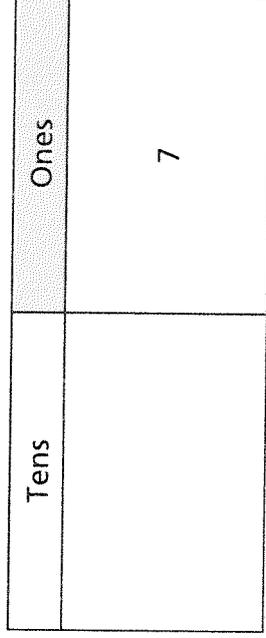
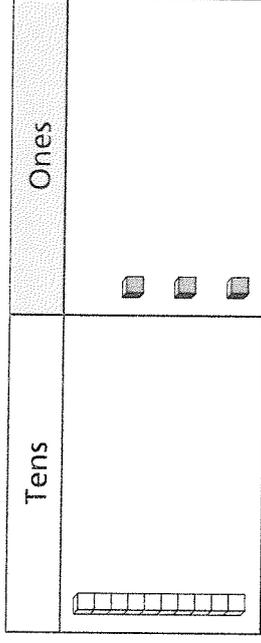
b)



There are tens
and ones.

The number represented is

c) What is the same and what is different about the place value charts?



1 What number is represented in each place value chart? Complete the number sentences.

a)

Tens	Ones
2	6

+ 6 =

b)

Tens	Ones
3	0

+ =

c)

Tens	Ones
0	9

+ =

4 Complete the place value charts and sentences.

a)

Tens	Ones

There are 9 tens and 4 ones.

The number is

b)

Tens	Ones

There are tens

and ones.

The number is 75

5

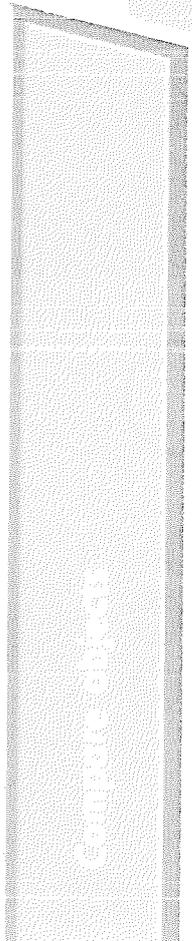
Tens	Ones
	  

Tens	Ones
	

Dexter says that both place value charts represent the same number.

Eva says that cannot be true because they look different.

Who do you agree with? Why?



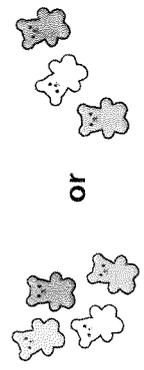
Draw pictures to represent the sentences.

a) 16 is greater than 12

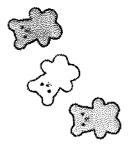


Which picture shows more? Circle your answers.

a)



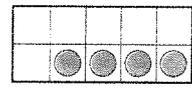
or



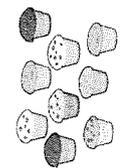
d)



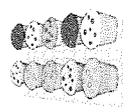
or



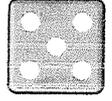
b)



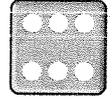
or



e)



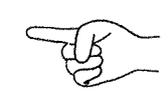
or



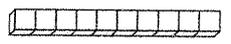
c)



or



f)



or



b) 11 is less than 21



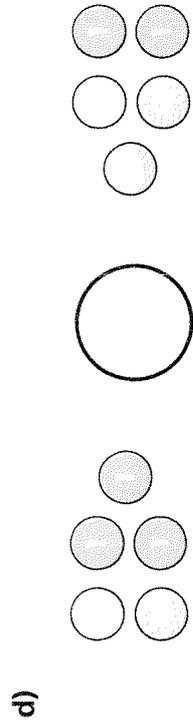
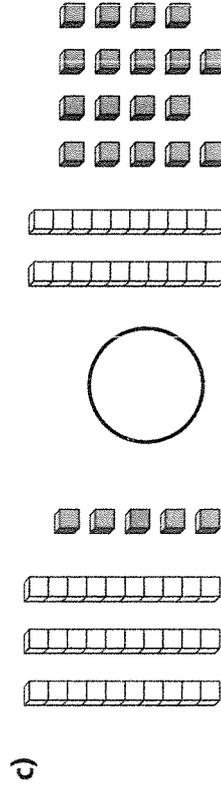
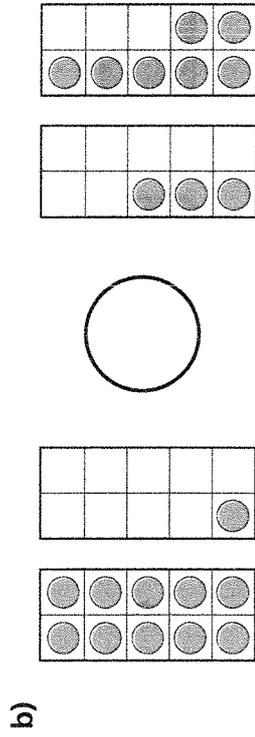
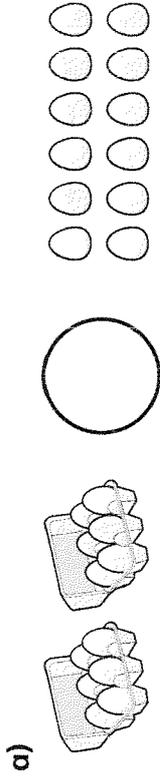
c) 18 is less than 1 ten and 9 ones.



Talk about your answers with a partner.

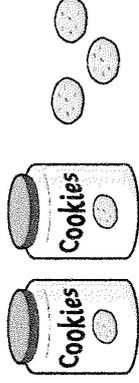


3 Write $<$, $>$ or $=$ to compare the objects.

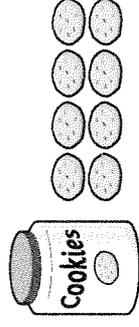


4 There are 10 cookies in each tin.

Alex has these cookies.



Amir has these cookies.



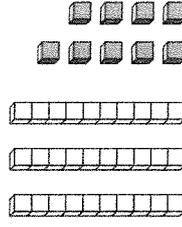
Who has fewer cookies?

_____ has fewer cookies than _____.

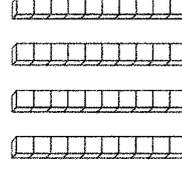
How do you know?

5 Mo and Whitney have each made a number.

Mo's number



Whitney's number



Mo thinks his number is greater because there are more objects.

Do you agree? _____

Talk about it with a partner.

2 Write the missing phrase.

greater than

less than

equal to



a) 31 is _____ 34

b) 18 is _____ 8

c) seventy is _____ seventeen

d) $40 + 5$ is _____ 45

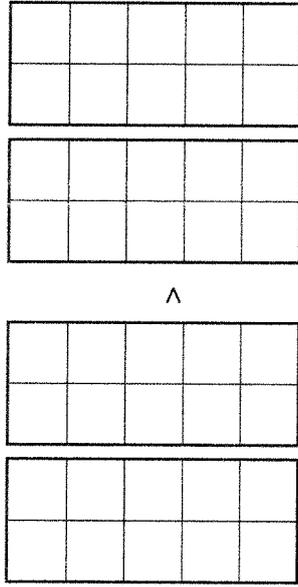
e) 9 tens is _____ 9 ones

f) 23 ones is _____ $30 + 7$

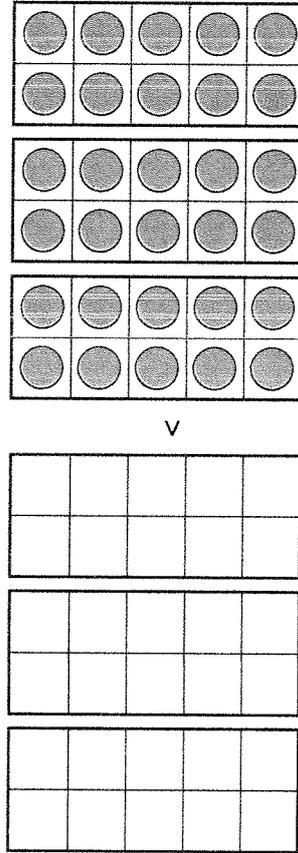


1 Draw counters to represent the sentences.

a) 15 is greater than 14



b) 21 is less than 30



3 Write $>$, $<$ or $=$ to compare the numbers.

a) 47 74 d) 71 70

b) 19 90 e) 8 tens 9 ones

c) 15 ones 2 tens f) 30 ones 3 tens

4 Complete the sentences.

a) Forty-eight is greater than _____.

b) < 15

c) 6 tens =

d) $30 + 9 <$

e) > 11

Is there more than one answer for each?

Talk about it with a partner.

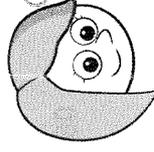
5 Write $>$, $<$ or $=$ to compare the numbers.

a) 50 $50 + 7$ c) 50 $40 + 17$

b) $10 + 20$ $10 + 16$ d) 30 ones $10 + 19$

6 Rosie is thinking of a number.

It is more than 32
but less than 35



What number could Rosie be thinking of?

7 Complete the number sentence.

$21 <$ < 30

Are there any other answers?

How do you know you have found them all?

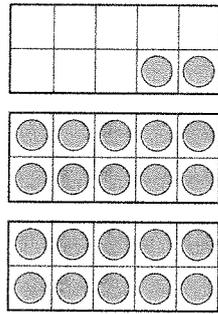
8 2 tens and 13 ones is less than 3 tens.

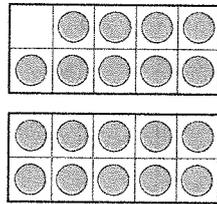
Is the statement true or false?

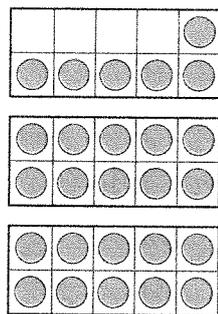
Use base 10 to represent your answer.

Order objects and numbers

a) What numbers are represented?



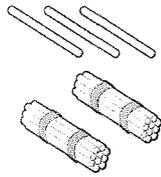


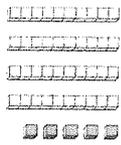


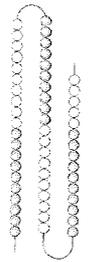
b) Write the numbers in order.
Start with the smallest number.

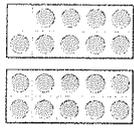
How did you put the numbers in order?

a) What numbers are represented?









b) Which is the smallest number?

is the smallest number.

c) Which is the greatest number?

is the greatest number.

d) How did you find the smallest and greatest numbers?

e) Write any of the numbers to complete the number sentences.

>

<

How many different ways can you complete the sentences?



3 Use base 10 to make the numbers fifty, fifteen and thirty-five.

a) Write the numbers in order.

Start with the greatest number.

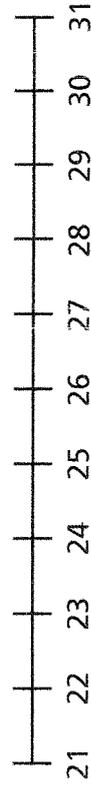
b) Write the numbers in order.

Start with the smallest number.



What do you notice? Talk to a partner.

4 a) Circle the numbers 27, 22 and 30 on the number line.



b) Write the numbers 27, 22 and 30 in order.

Start with the smallest number.

5

a) Label 68, 61 and 64 on the number line.



b) Write the numbers 68, 61 and 64 in order.

Start with the greatest number.

6

Write the numbers in order.

Start with the smallest number.

31

42

29

36

9



How did you order the numbers?

Compare your answer with a partner's answer.

7

When you compare two numbers, the number with more ones is greater.

Is this statement always, sometimes or never true?

How do you know?

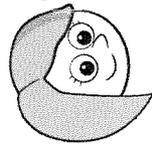


Fact families – addition and subtraction bonds to 20

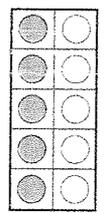


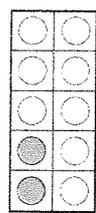
2 Complete the fact family.

a) $15 + 2 = 17$
 $17 = 15 + 2$
 $2 + 15 =$
 = +
 $17 - 15 =$
 = -
 = -
 = -

b)  $2 - 17 = 15$ should be in the fact family.

1 What number bonds to 20 are represented?
 The first one has been done for you.

a)  $15 + 5 = 20$

b)  + =

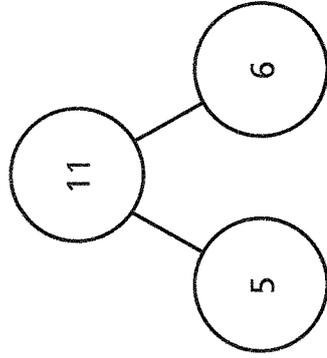
c)  + =

d) How many other number bonds to 20 can you make using counters and ten frames?



Explain why Rosie is wrong.

- 1 Complete the number sentences for the part-whole model.

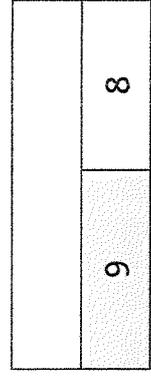


<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>

Are there any other number sentences in this fact family?

Talk about it with a partner.

- 4 There are 9 boys and 8 girls in a class. Complete the bar model to represent this.



Write the fact family for the bar model.

- 5 Circle any incorrect calculations.

$3 + 7 = 10$ $10 = 3 + 7$

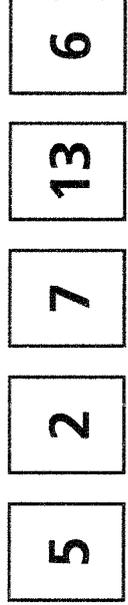
$7 + 3 = 10$ $10 = 7 + 3$

$10 - 7 = 3$ $7 - 3 = 10$

$3 - 10 = 7$ $7 = 10 - 3$

Explain any mistakes that have been made.

- 6 Here are some number cards.



Choose three number cards to complete the number sentence.

<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
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Write the fact family for this calculation.

Compare answers with a partner.

Check calculations

1 Draw counters to represent each calculation.

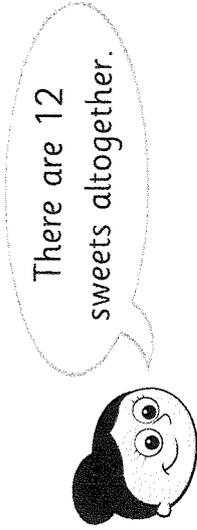
a) $13 + 3 = 16$

b) $4 + 9 = 13$

c) $15 - 1 = 14$

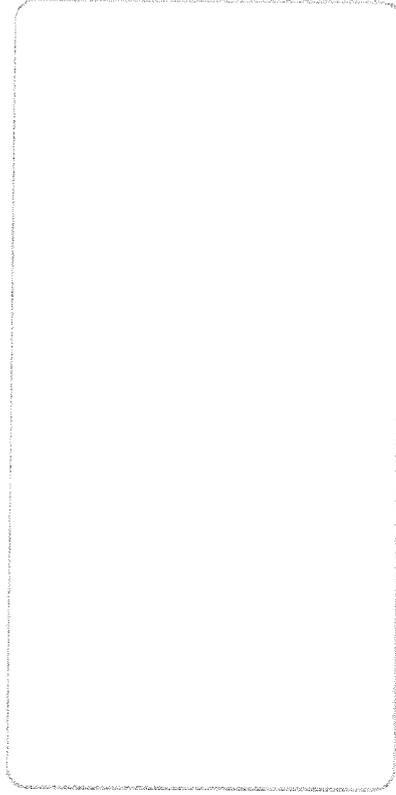
d) $20 - 12 = 8$

2 A bag of sweets has 8 red sweets and 3 yellow sweets.



Is Dora correct? _____

Draw a picture to show how you know.



3 Circle the calculations that can be used to check $14 + 3 = 17$

$14 - 3$

$17 - 3$

$3 - 14$

$17 - 14$

- 4 Use inverse operations to check $9 + 6 = 15$

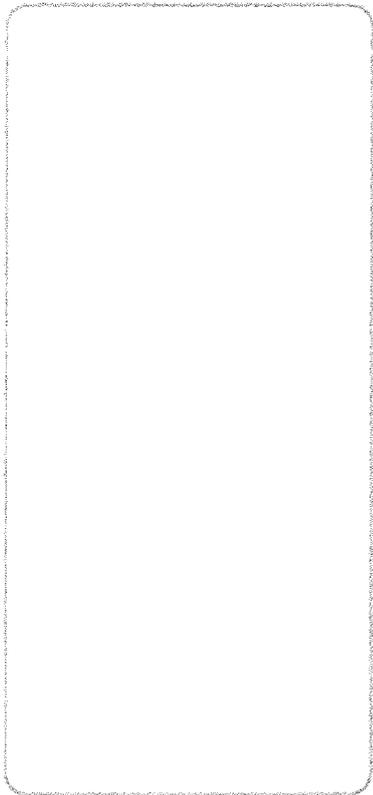
9	6
15	

<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	-	<input type="text"/>	=	<input type="text"/>

- 5 Is this statement true or false?

$$18 - 4 = 14$$

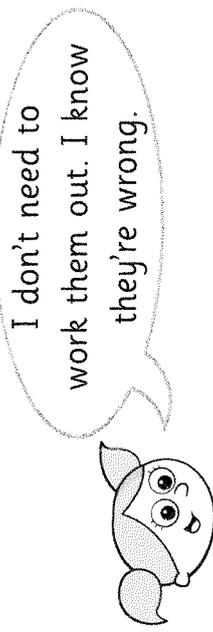
Show how you know.



- 6 Jack is answering some maths questions.

$4 + 5 = 19$
$15 - 3 = 18$
$4 = 20 - 6$

Alex is checking Jack's workings.



Show how Alex knows this.



Compare number sentences

- 1 Mo has 4 blue sweets and 3 pink sweets.



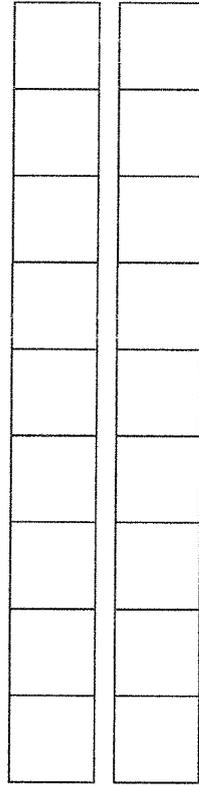
Rosie has 4 blue sweets and 5 pink sweets.



Who has more sweets? _____
Explain how you know.



- 2 Colour the bar models to show that $3 + 6 = 8 + 1$

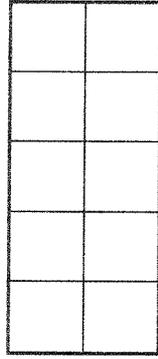
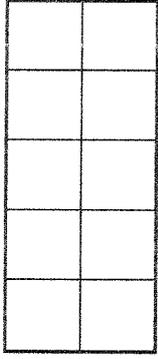


Write one more calculation that gives the same answer.

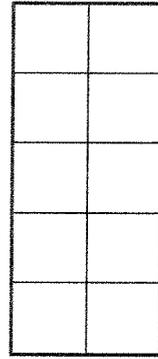
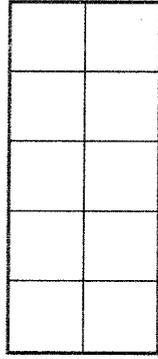
Compare answers with a partner.



- 3 Draw counters to show $9 + 3$



- Draw counters to show $9 + 4$



Write $<$, $>$ or $=$ to make the statement correct.

$9 + 3$ ○ $9 + 4$

- 4 Write $<$, $>$ or $=$ to make the statements correct.

a) $3 + 5$ ○ $3 + 9$

b) $7 + 2$ ○ $4 + 2$

c) $10 + 5$ ○ $9 + 6$



5 Cross out counters to show $9 - 3$



Cross out counters to show $9 - 4$



Write $<$, $>$ or $=$ to make the statement correct.

$$9 - 3 \bigcirc 9 - 4$$

6 Write $<$, $>$ or $=$ to make the statements correct.

a) $20 - 5 \bigcirc 20 - 6$

b) $17 - 4 \bigcirc 13 - 4$

c) $11 - 3 \bigcirc 12 - 4$

7 Complete the additions.

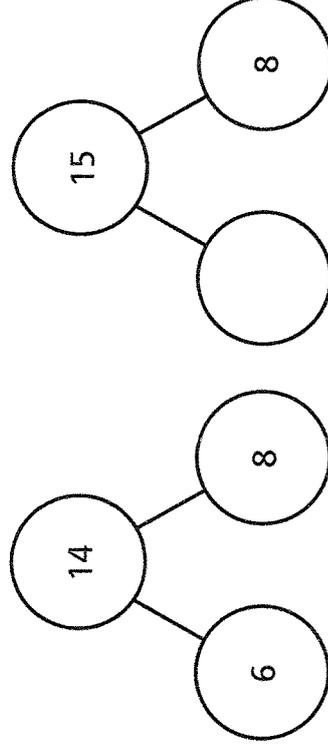
a) $4 + 1 = 3 + \square$

b) $14 + 1 = 13 + \square$

c) $9 + 11 = \square + 10$

d) $10 + 9 = \square + 8 = 12 + \square$

8



Teddy knows what the missing number is without calculating.

Explain how Teddy knows this.

What is the missing number?



5 Here are some cards showing number bonds.

2 + 8	3 + 6	5 + 5	7 + 2
3 + 7	4 + 5	8 + 1	6 + 4

a) Sort the cards into the table.

Bonds to 9	Bonds to 10

b) Write some more bonds to 9 and 10 in the table.

6 Complete the bonds.

a) $\square + 5 = 8$	c) $8 + \square = 10$
b) $3 + \square = 3$	d) $3 + \square = 5$

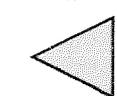
e) $\square + 2 = 8$	h) $\square + 4 = 8$
f) $\square + 1 = 10$	i) $\square + 5 = 9$
g) $5 + \square = 7$	j) $4 + \square = 6$

7 Work out the value of each shape.

 +  = 10

 +  = 6

 +  = 

 = \square  = \square  = \square



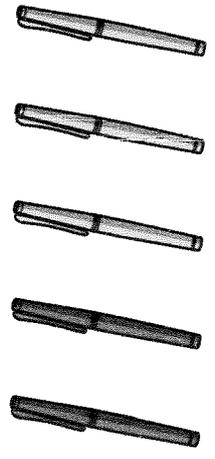
Equivalent Facts

- 1 Use base 10 to show that $3 + 5 = 8$ and $30 + 50 = 80$

Draw your answer.

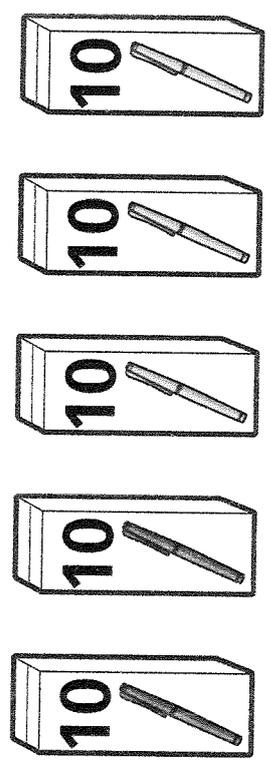
What is the same about your models?
What is different?

- 2 a) Eva has 2 red pens and 3 blue pens.



How many pens does Eva have?

- b) Tommy has 20 red pens and 30 blue pens.



How many pens does Tommy have?

- 3 Fill in the missing numbers in the related facts.

a) $1 + 2 = 3$
 $10 + 20 =$

b) $7 + 2 = 9$
 $70 + 20 =$

c) $4 + 6 =$
 $+ 60 = 100$

d) $1 + 8 =$

$+ 10 = 90$

e) $3 + 4 =$

$+ \text{ } = 70$

f) $8 +$ $= 8$

$+ 80 = 80$

5 Fill in the missing numbers in the related facts.

a) $5 - 3 = 2$

$50 - 30 =$

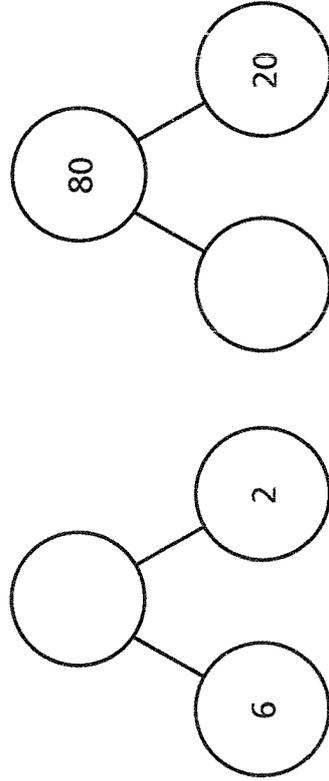
b) $7 - 1 = 6$

$70 - 10 =$

c) $10 - 6 =$

$- 60 = 40$

4 Complete the part-whole models.



If $3 + 1 = 4$,
then $30 + 10 = 400$ because
there are two zeros.

Do you agree with Dexter? _____
Explain your answer. _____