

Homework Helpers

Grade K

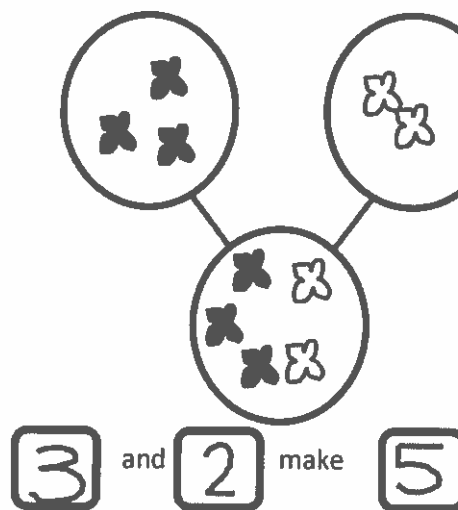
Module 4

GK-M4-Lesson 1

Number Bonds

Number bonds are models that show how numbers can be taken apart. The bigger number is the *whole*, or *total*, and the smaller numbers are the *parts* except when there is a 0. For now, please use everyday words such as “is,” “and,” and “make.” Addition and subtraction will come later in this module. Number bonds are shown in different positions so that students can become flexible thinkers!

Draw the dark butterflies in the first circle on top. Draw the light butterflies in the next circle on top. Draw all the butterflies in the bottom circle.



There are 3 dark butterflies; that's one part.

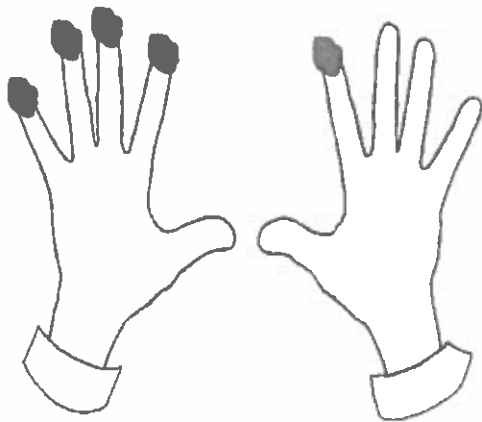
There are 2 light butterflies; that's the other part.

When I count them all, there are 5. That's the total, or whole.

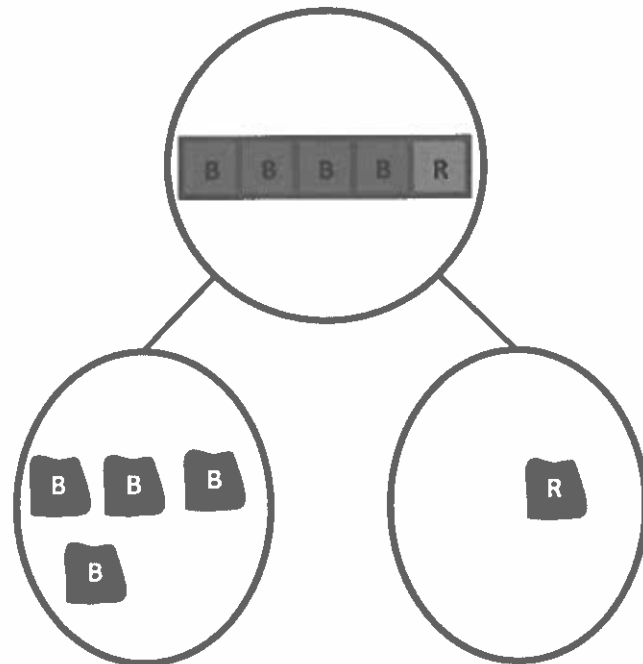
GK-M4-Lesson 2

The squares below represent a cube stick. Color some squares blue and the rest of the squares red. Draw the squares you colored in the number bond. Show the hidden partners on your fingers to an adult. Color the fingers you showed.

I decided to color 4 squares blue and 1 red.
I could have colored 3 and 2. Any way I color, there are 5 squares in all.



I show 4 fingers on one hand and 1 on the other hand. That's 5 fingers in all.
Here are the fingers I showed. Can you think of another way?

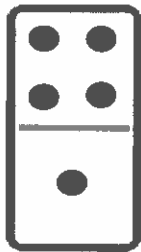


I see how my fingers, squares, and number bond match: 4 and 1 make 5. I can also say 5 is the same as 4 and 1.

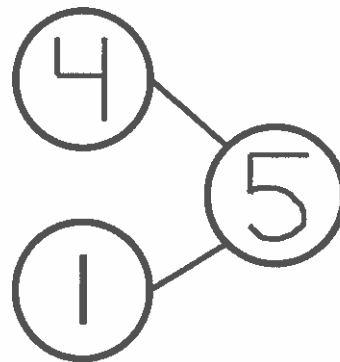
GK-M4-Lesson 3

Fill in the number bond to match the domino.

One side of the domino has 4 dots on it. That's one part.



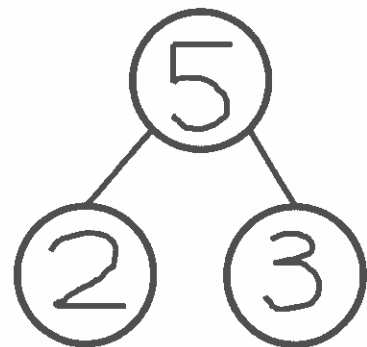
The other side has 1 dot. That's the other part. 4 and 1 make 5.



I count 5 dots in all. So, 5 is the total.

Fill in the domino with dots, and fill in the number bond to match.

Now I get to make my own. This is fun!



GK-M4-Lesson 4

Finish the number bond. Finish the sentence.

I see the shapes in two groups: circles and triangles.



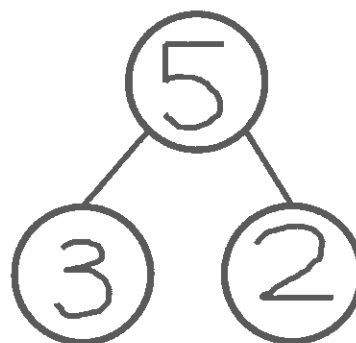
5 is 3 and 2

I count 5 shapes in all.

3 of them are circles, and 2 of them are triangles.

5 is the same as 3 and 2.

I can break apart 5.



Let me tell you how my number bond matches the picture.

5 is the number of shapes in all.

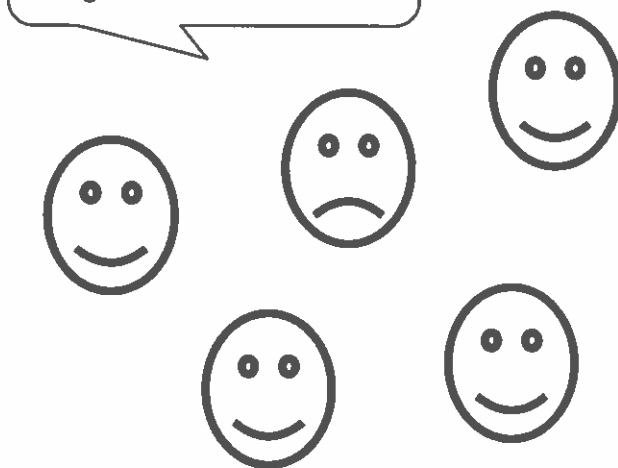
3 is the number of circles, and 2 is the number of triangles.

I can break apart 5.

GK-M4-Lesson 5

Tell a story about the picture. Fill in the number bond and the sentence to match your story.

There are 4 happy faces and 1 sad face. There are 5 faces altogether. I can make 5.



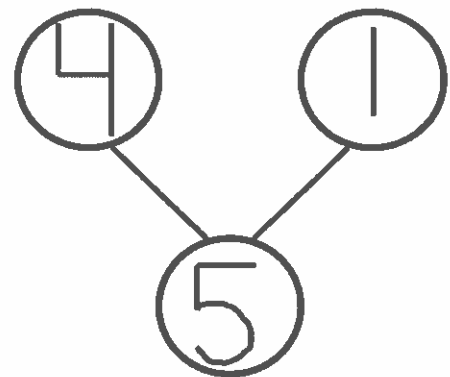
4

and

1

make

5



Let me tell you how my number bond matches the picture.

4 is the number of happy faces, and 1 is the number of sad faces.

When I put together 4 and 1, they make 5.

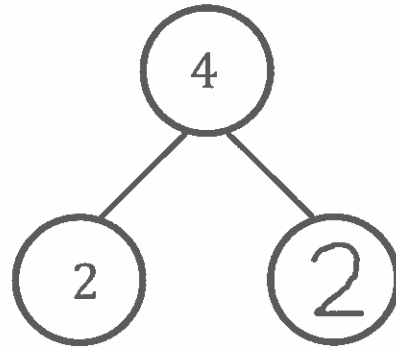
GK-M4-Lesson 6

Tell a story. Complete the number bond. Draw pictures that match your story and number bond.

Draw some animals for your story.



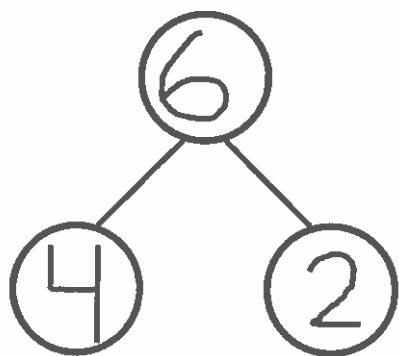
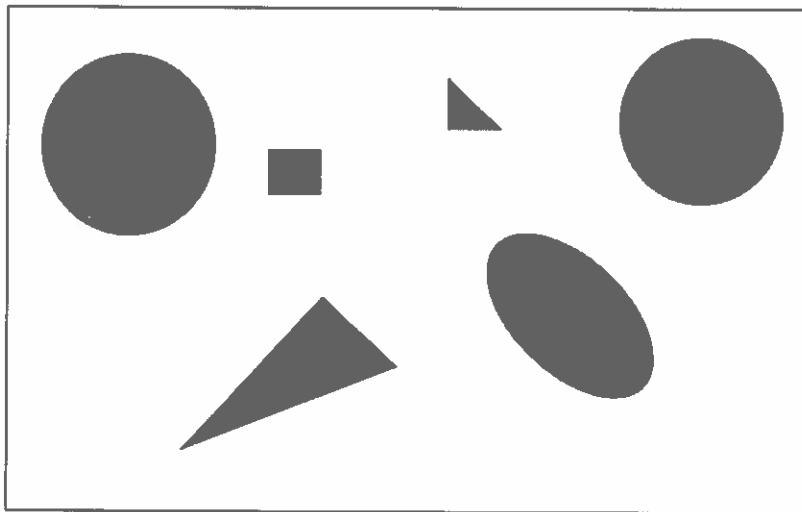
Listen to my story! At the pet store, I saw 4 animals. 2 of them were cats, and the other 2 were birds.



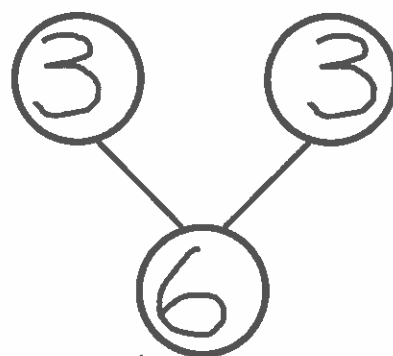
4 is the total. So I draw 4 animals.
2 is one of the parts, so I draw 2 cats.
The other part must be 2 since 4 is the same as 2 and 2.
I draw 2 birds to make 4 animals in all.

GK-M4-Lesson 7

Look at the shapes. Make 2 different number bonds. Tell an adult about the numbers you put in the number bonds.



I count 6 shapes in all. There are 4 big shapes and 2 small shapes.



I see shapes with curves and shapes with points. Let me count them. There are 3 curved shapes and 3 pointy shapes.

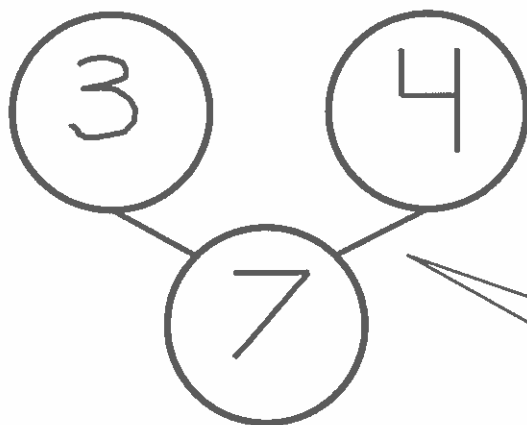
My number bonds show different ways to break apart 6.

GK-M4-Lesson 8

The squares represent cube sticks. Color some cubes red and the rest blue. Fill in the number bond and sentence to match.



There are lots of ways to break apart 7. This time, I get to choose! I color 3 red and 4 blue. Now I see the cubes in two parts: red cubes and blue cubes.



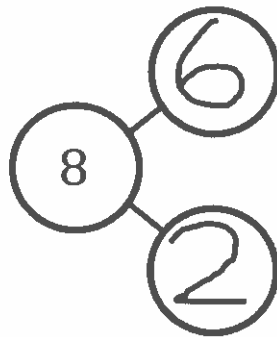
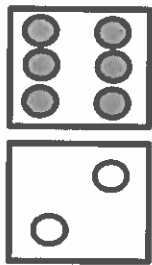
The lines on the number bond show how I break apart 7.



When I count both parts, the total is 7. 7 is the same as 3 and 4.

GK-M4-Lesson 9

Complete the number bond to match the domino.



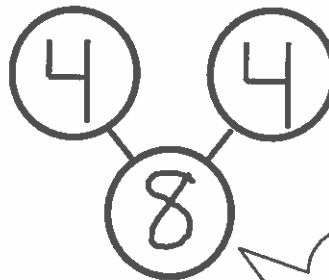
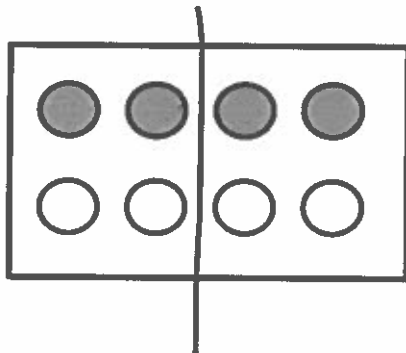
Let me tell you how my number bond and domino match.

8 tells how many dots in all.

6 is the number of grey dots.

2 is the number of white dots.

Draw a line to make 2 groups of dots. Fill in the number bond.



I think I'll draw my line right here.
Where did you draw your line?

This number bond tells me two things at once:

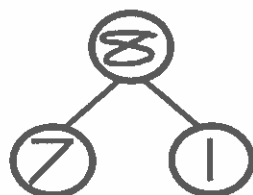
8 is the same as 4 and 4.

4 and 4 make 8.

It matches my dot picture!

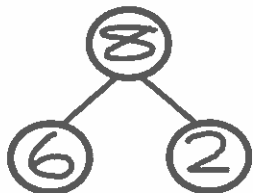
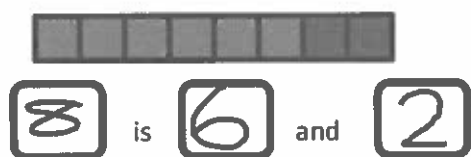
GK-M4-Lesson 10

The squares below represent cubes. Color 7 cubes green and 1 blue. Fill in the number bond.



The whole stick has 8 cubes. The parts are 7 and 1.

Color 6 cubes green and 2 blue. Fill in the number bond.



This number bond tells 4 things:

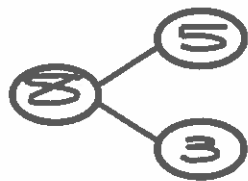
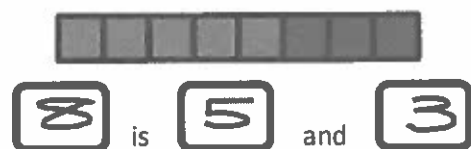
8 is 6 and 2.

8 is 2 and 6.

6 and 2 make 8.

2 and 6 make 8.

Color some cubes green and the rest blue. Fill in the number bond.

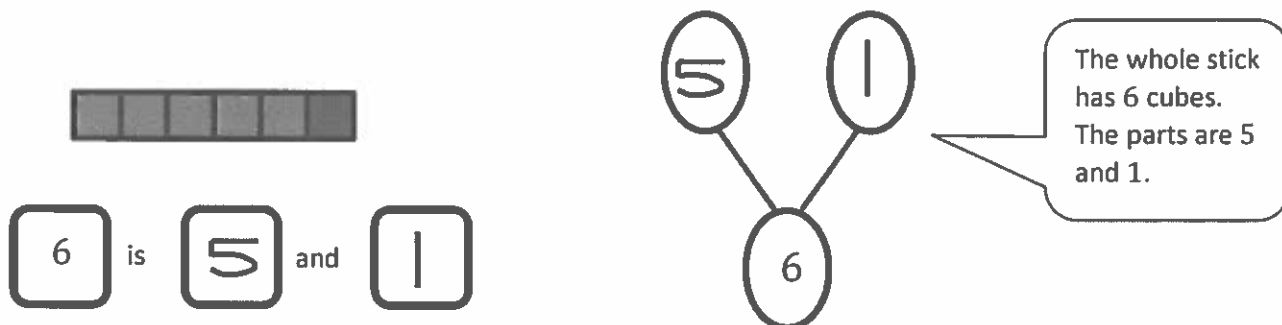


Sometimes the whole is on the side.

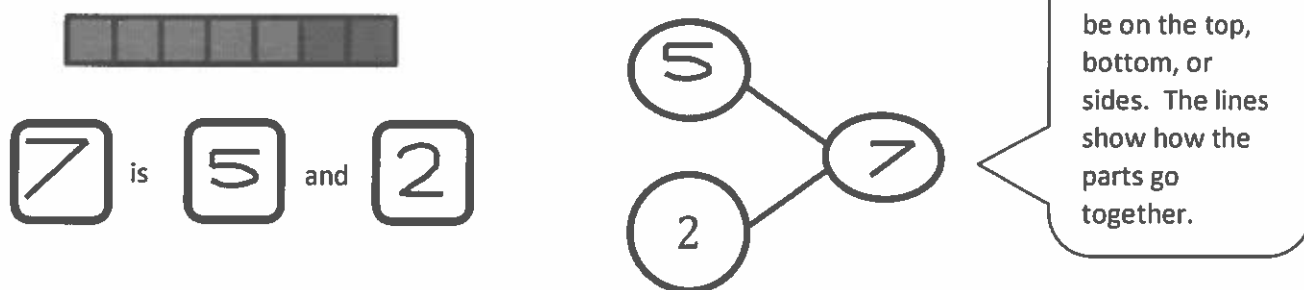
The lines show how I took apart 8.

GK-M4-Lesson 11

These squares represent cubes. Color 5 cubes green and 1 blue. Fill in the number bond.



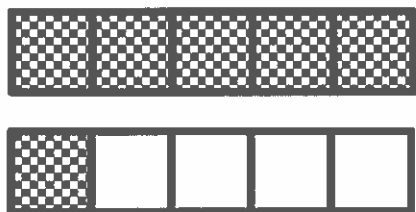
Color 5 cubes green and 2 blue. Fill in the number bond.



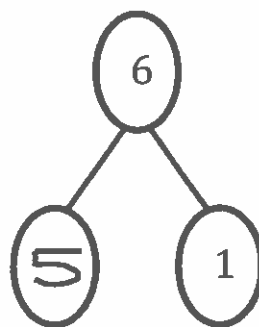
GK-M4-Lesson 12

Fill in the number bond to match the squares.

I see 6 as
5 on the
top and 1
on the
bottom.



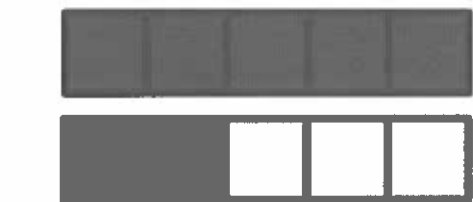
6 is 5 and 1 more.



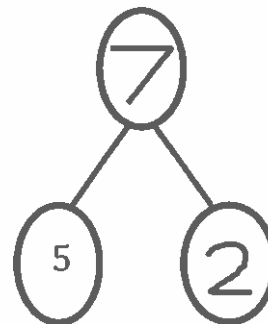
Color 5 squares blue in the first row.

Color 2 squares red in the second row.

A faster way
to count
5-groups is
like this:
fiiiive, 6, 7.
If I need to, I
can count all
the squares I
colored.



7 is 5 and 2 more.



GK-M4-Lesson 13

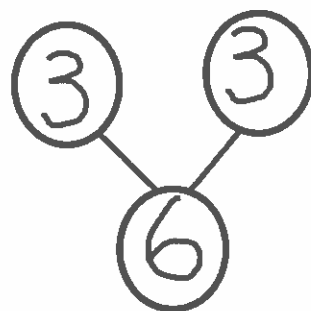
There are 3 monkeys and 3 elephants. All 6 animals are going into the circus tent. Fill in the number sentence and the number bond.

This story starts with the parts and ends with the whole.
I'll write my number sentences that way, too!

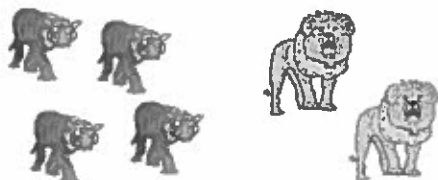


$$\boxed{3} \text{ and } \boxed{3} \text{ is } \boxed{6}$$

$$\boxed{3} + \boxed{3} = \boxed{6}$$



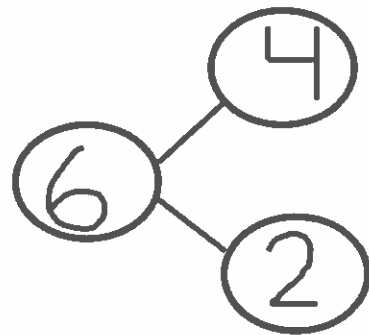
There are 6 animals. 4 are tigers, and 2 are lions. Fill in the number sentences and the number bond.



$$\boxed{6} \text{ is } \boxed{4} \text{ and } \boxed{2}$$

$$\boxed{6} = \boxed{4} + \boxed{2}$$

This story is different. It starts with the whole and ends with the parts.
I'll write my number sentences that way, too!



GK-M4-Lesson 14



There are 7 bears. 3 bears have bowties. 4 bears have hearts. Fill in the number sentences and the number bond.

$$\boxed{7} = \boxed{3} + \boxed{4}$$
$$\boxed{3} + \boxed{4} = \boxed{7}$$

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graph LR; 7((7)) --- 3((3)); 7 --- 4((4))
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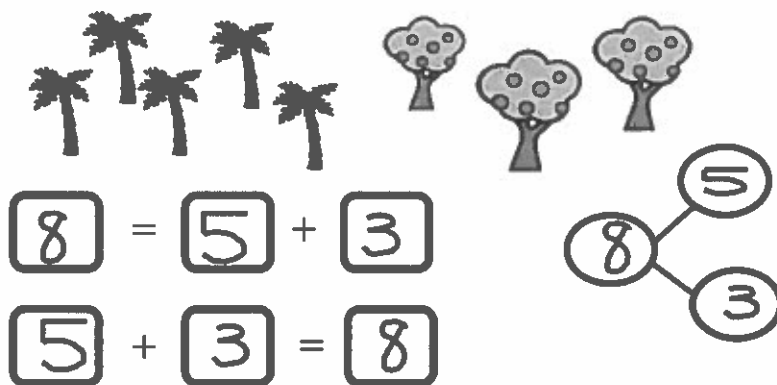
I wrote the addition sentences both ways: take apart and put together. My number bond shows that, too!

GK-M4-Lesson 15

There are 8 trees. 5 are palm trees, and 3 are apple trees. Fill in the number sentences and the number bond.

This addition sentence shows that there are 8 trees: 5 of one kind and 3 of another.

This addition sentence shows how the parts go together to make 8.



8 is the whole.
5 and 3 are the parts.

GK-M4-Lesson 16

There are 3 penguins on the ice. 4 more penguins are coming. How many penguins are there?

To find the mystery number, I can count all of the penguins: 1, 2, 3, 4, 5, 6, 7. There are 7 penguins in all!



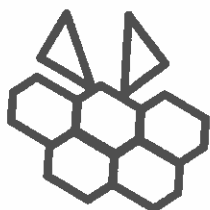
$$3 + 4 = \boxed{7}$$

The mystery box is for the number we don't know. I can trace the mystery box.

GK-M4-Lesson 17

There are 5 hexagons and 2 triangles. How many shapes are there?

I can add the hexagons
and the triangles.
The total number of
shapes is 7.



$$7 = 5 + 2$$

$$5 + 2 = 7$$

I can say this number
sentence two ways:
7 equals 5 plus 2.
7 is the same as 5 and 2.

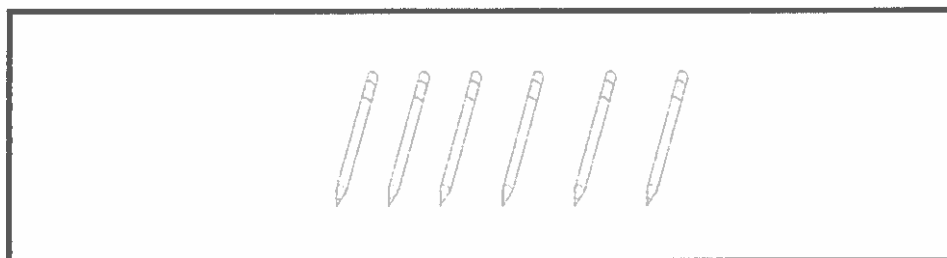
I can say this number
sentence two ways:
5 plus 2 equals 7.
5 and 2 make 7.

GK-M4-Lesson 18

Devin has 6 pencils. He put some in his desk and the rest in his pencil box. Write a number sentence to show how many pencils Devin might have in his desk and pencil box.

The total is 6.

I get to choose how many of each!



$$6 = 5 + 1$$

I chose $5 + 1$, but I could have written $1 + 5$, $4 + 2$, $2 + 4$, or $3 + 3$. There are so many partners to 6.

GK-M4-Lesson 19

Later I'll learn about "minus." For now, I can say that 5 trains take away 1 train is 4 trains.

1 train drove away. Cross out 1. Write how many were left.



4

4 tells how many are left.

It doesn't matter which one I cross out as long as I cross out 1.

Two Ways to Cross Out

One at a time



All at once



GK-M4-Lesson 20

The squares below represent cube sticks. Match the cube stick to the number sentence.

Let's see. There are 5 squares in the whole stick.

2 are crossed out, and 3 are left.

I can tell about it like this:

5 take away 2 is 3.

Another way is like this:

5 minus 2 equals 3.

We just learned that "minus" is a math word for "take away."

$$5 - 3 = 2$$



$$5 - 1 = 4$$

$$5 - 2 = 3$$

5 tells about the whole cube stick.

Minus 2 tells about the 2 that are crossed off.

Equals 3 tells about the 3 that are left.

It's a match!

GK-M4-Lesson 21

There were 4 oranges. Robin ate 1. Cross out the orange she ate. How many oranges were left? Fill in the boxes.

I cross out 1. Then, I count how many are left: 1, 2, 3. So, 4 take away 1 is 3.



4 take away 1 is

3

$4 - 1 =$

3

I can read the number sentence: 4 minus 1 equals 3. "Minus" is how you say "take away" in math.

GK-M4-Lesson 22

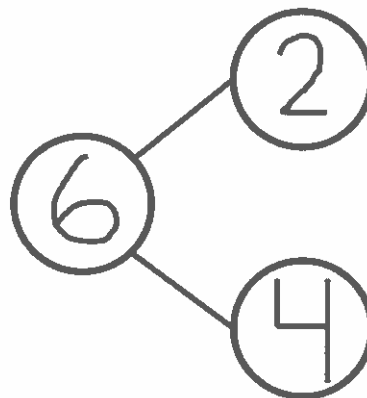
Draw 6 hearts. Cross out 2. Fill in the number sentence and the number bond.



I cross out 2 all at once. That's fast!

The total, or whole, is 6. That's how many hearts there are in all.

I break apart the group of 6 hearts. Now 2 are crossed out, and 4 are not. The parts are 2 and 4.

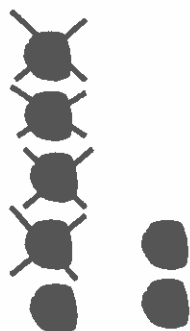


$$\boxed{6} - \boxed{2} = \boxed{4}$$

Crossing out is like taking away, so I subtract. I started with 6 hearts. So my number sentence starts with 6.

GK-M4-Lesson 23

Draw 7 dots in a 5-group. Cross out 4 dots. Fill in the number sentence and number bond.

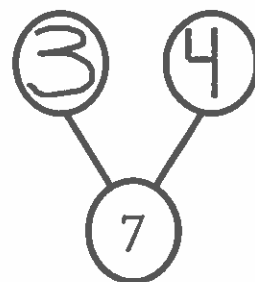


I see 4 right here. I cross them out one by one. Which 4 did you cross out?

Here is another way to draw 7 dots in a 5-group. It's easy to see 7. It's 5 and 2 more!



4 dots are crossed out. 3 dots are not crossed out. 4 and 3 are the parts. 7 is the whole.



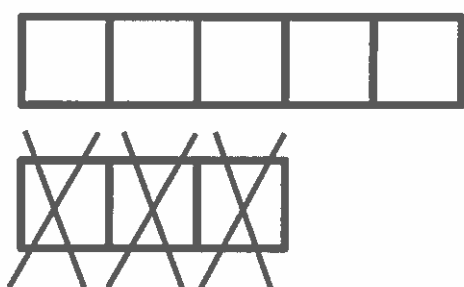
$$7 - \boxed{4} = \boxed{3}$$

There are 7 dots in all. I crossed out 4 dots. 3 dots are left.

GK-M4-Lesson 24

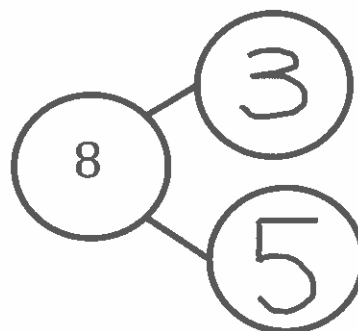
Here is 8 the 5-group way. Put an X on 3 cubes. How many are left?

Fill in the number sentence and number bond.



$$8 - \boxed{3} = \boxed{5}$$

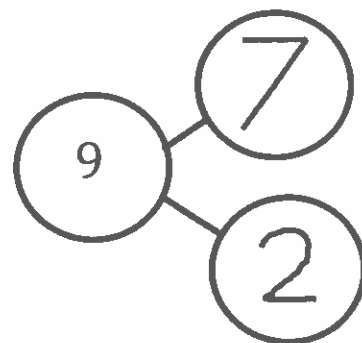
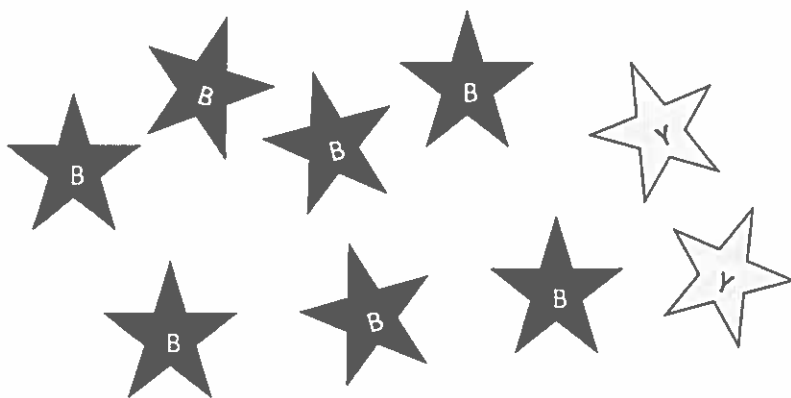
I did it! My picture, my number bond, and my number sentence all match. I could have crossed out 3 cubes a different way, and it would still match.



My number bond shows how I broke apart 8. 3 cubes are crossed out. 5 cubes are not crossed out. 8 is the total, or whole. It's like 3 and 5 are hiding inside of 8.

GK-M4-Lesson 25

There are 9 stars. Color some blue and the rest yellow. Fill in the number bond.



This is fun! I get to choose how many of each color. There are so many ways to break apart 9.

Let me tell you how my number bond goes with my star picture. There are 9 stars in all. That's the total. I color 7 blue and 2 yellow. Those are the parts. When I count all the stars, there are still 9.

GK-M4-Lesson 26

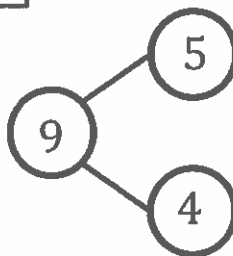
The squares below represent cube sticks.

Do the linking cube sticks match the number bond? Circle yes or no.



Yes

No

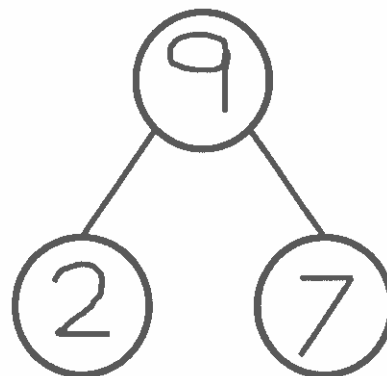


I count 9 cubes in all. So, the total, or whole, is right, but the parts are not. There are 3 gray cubes and 6 white cubes, not 5 and 4. That's not a match.

Make the number bond match the cube stick.



Let's see. There are 9 cubes in the whole stick. Part of the cube stick is gray, and the other part is white. I count each part. The parts are 2 and 7.



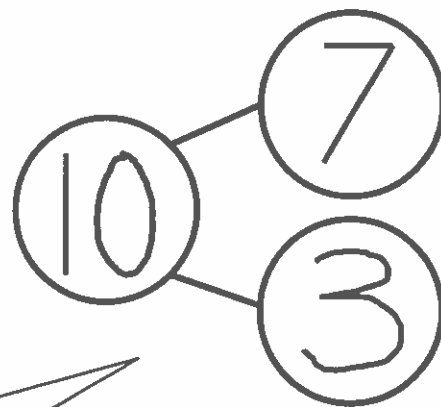
I can read the number bond. 9 is the same as 2 and 7. I can also say 9 is the same as 7 and 2. Either way, my number bond matches the cube stick.

GK-M4-Lesson 27

Pretend this is your bracelet.

Color some beads red and the rest black. Make a number bond to match.

Cool! I get to choose how many of each color. I pick 7 red and 3 black. My friend might pick different numbers. No matter what, the total of number of beads on each of our bracelets is still 10.

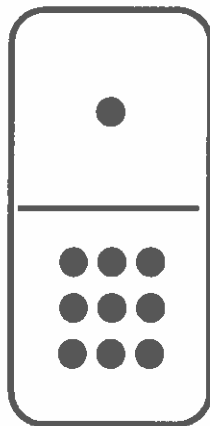


The whole, or total, is 10. The parts are 7 and 3. There are 10 beads on the whole entire bracelet. The number 7 is for just the red beads, and the number 3 is for just the black beads.

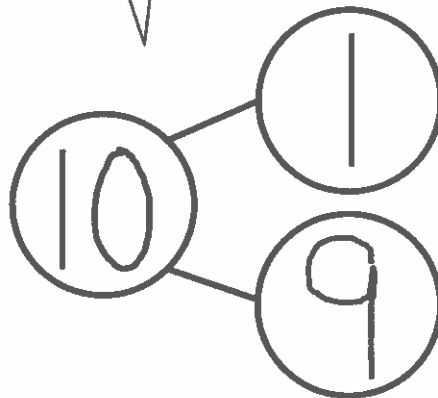
GK-M4-Lesson 28

Write a number bond to match each domino.

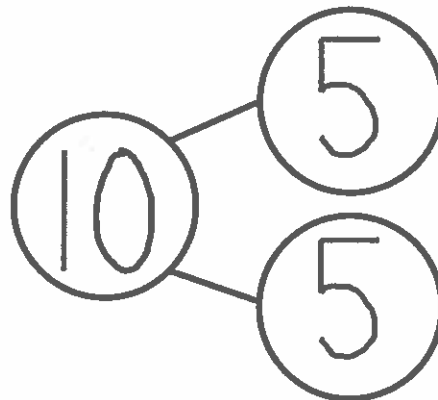
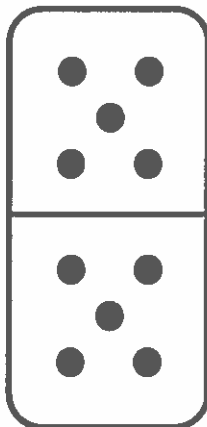
It's easy to break apart numbers with dominoes. Just count the number of dots on each side to get the parts.



I count all the dots to find the total.



There are so many ways to break apart 10. This one is just like the fingers on both of my hands!



GK-M4-Lesson 29

Rosey found 8 paintbrushes and 1 gluestick. She found 9 art things. Draw the paintbrushes and the glue stick in the 5-group way. Fill in the number sentence.



I draw two kinds of dots: circles and filled in circles. That way, I can remember what they go with. The filled in circles are for the paintbrushes. The regular circle is for the glue stick.

$$\boxed{9} = \boxed{8} + \boxed{1}$$

I can read the number sentence two ways. 9 equals 8 plus 1. Or, 9 is the same as 8 and 1. That helps me understand better!

Jack needs a snack. He found 9 pieces of fruit. 5 were apples, and 4 were oranges. Draw the apples and oranges in the 5-group way. Fill in the number sentence.

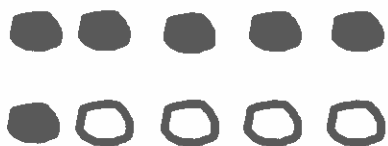


To draw the 5-group way, I draw dots on the top row, from left to right. 9 is 5 and 4, so I draw 5 dots on the top, and 4 on the bottom.

$$\boxed{5} + \boxed{4} = \boxed{9}$$

GK-M4-Lesson 30

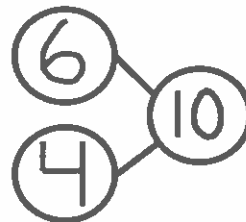
Ming saw 10 animals at the pet store. She saw 6 fish and 4 turtles. Draw the animals in the 5-group way.



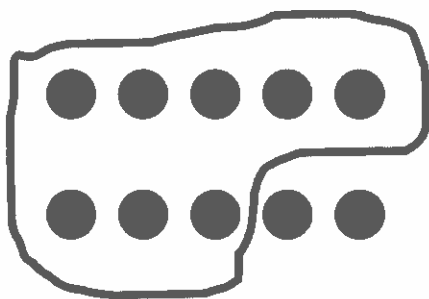
6 is 5 and 1, so I draw 5 dots on the top and 1 on the bottom.

To draw the other part, 4, I just filled in the rest of the 5-group. That's easy. It makes 10.

$$\boxed{6} + \boxed{4} = \boxed{10}$$



Make 2 groups. Circle 1 of the groups. Write a number sentence to match. Find as many partners of 10 as you can.



I can use my imagination to make 2 groups. I pretend the dots are crayons. 8 are in the box, and 2 are on the table.

$$10 = \boxed{8} + \boxed{2}$$

Listen to me say the number sentence. 10 equals 8 plus 2. Or, 10 is the same as 8 and 2. Both ways are right!

GK-M4-Lesson 31

Draw the story. Fill in the number sentence.

Ke’Azia has 6 chocolate chip cookies and 3 sugar cookies. How many cookies does she have altogether?

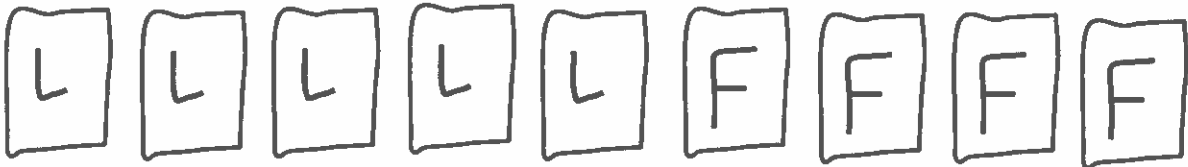


I can count all of them: 1, 2, 3, 4, 5, 6, 7, 8, 9.

A faster way is siiiilix, 7, 8, 9.
That’s how first graders do it!

$$\underline{6} + \underline{3} = \underline{9}$$

Mario’s mother bought juice boxes. 5 were lemonade, and 4 were fruit punch. How many juice boxes did she have in all?



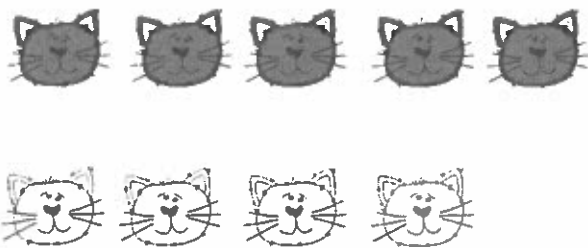
Math drawings don’t have to look like the real thing. I can just put an L, and my teacher will know it’s lemonade.

$$\underline{5} + \underline{4} = \underline{9}$$

GK-M4-Lesson 32

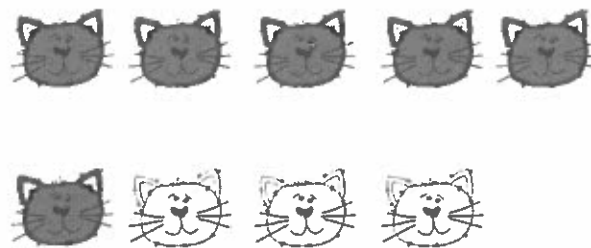
Anya has 9 stuffed cats. Some are gray, and the rest are white. Show two different ways Anya's cats could look. Fill in the number sentences to match.

I colored this one the 5-group way.



$$9 = 5 + 4$$

I colored this one a different way.



$$9 = 6 + 3$$

9 is the same as 5 and 4. It is also the same as 6 and 3. There is more than one way to break apart 9.

GK-M4-Lesson 33

Fill in the number sentence to match the story.

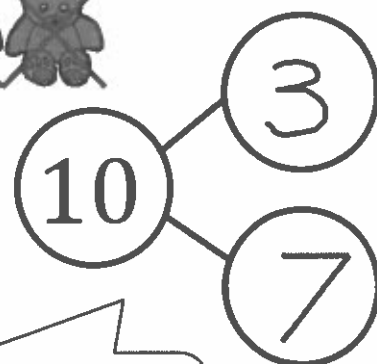
There were 10 teddy bears. Cross out 3 bears. There are 7 bears left.



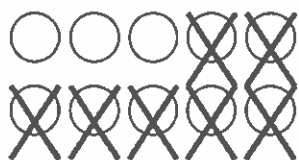
$$10 - \underline{3} = \underline{7}$$

I know there are 10 teddy bears, and I crossed out 3 bears. So, my number sentence is 10 take away 3 equals 7.

I crossed out 3 bears, and there were 7 left. So, 3 and 7 are my parts, and 10 is the whole.



Draw a line from the picture to the number sentence it matches.



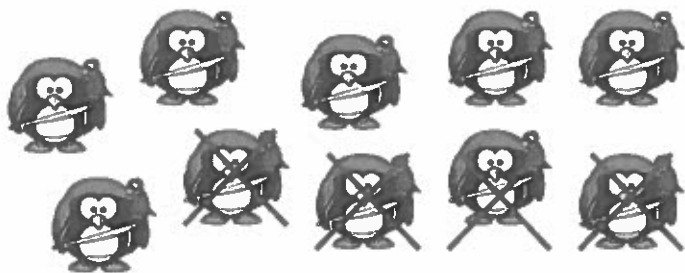
$$10 - 7 = 3$$

$$9 - 3 = 6$$

I know how to match number sentences to pictures! First, I count the objects. Then, I count how many are crossed out. Finally, I count how many are left.

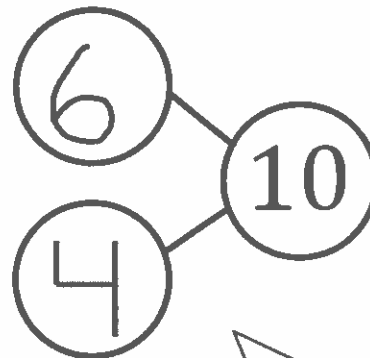
GK-M4-Lesson 34

There were 10 penguins. 4 penguins went back to the ship. Cross out 4 penguins. Fill in the number sentence and the number bond.



$$10 - 4 = \underline{6}$$

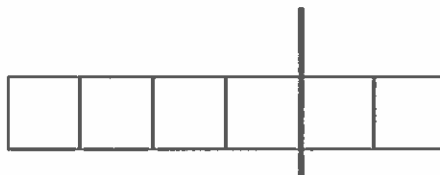
There are 10 penguins. I crossed out 4, and there are 6 left. So, 10 take away 4 equals 6.



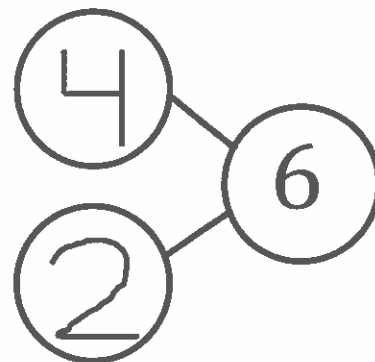
I know that 4 penguins are on the ship, and 6 penguins are not on the ship. 4 and 6 are my parts of 10.

The squares below represent cubes. Count the cubes. Draw a line to break 4 cubes off the train. Fill in the number sentence and the number bond.

I drew my line to break apart my cube train into parts of 4 and 2. I have 6 cubes. I break off 4 cubes, and I have 2 cubes left!



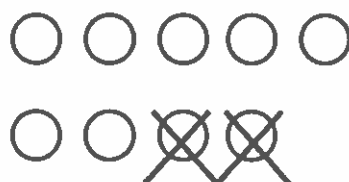
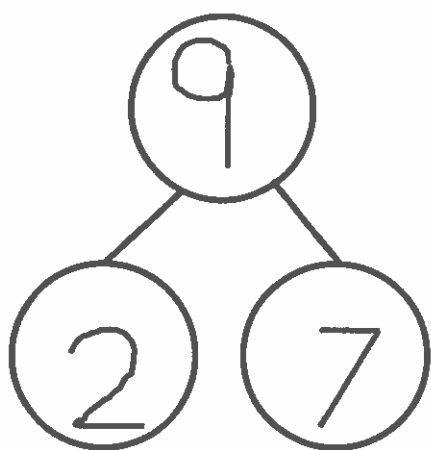
$$\underline{6} - \underline{4} = \underline{2}$$



GK-M4-Lesson 35

Cross off the part that goes away. Fill in the number bond and number sentence.

Mary had 9 library books. She returned 2 books to the library. How many books are left?

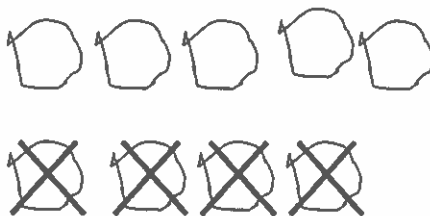
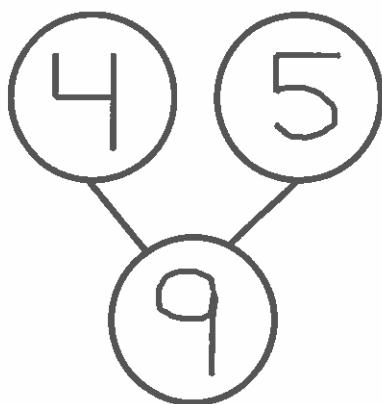


I solved it! If Mary had 9 library books, and she returns 2, then she has 7 books left.

$$\underline{9} - \underline{2} = \underline{7}$$

Make a 5-group drawing to show the story. Cross off the part that goes away. Fill in the number bond and number sentence.

Ryder had 9 pencils. 4 of them broke. How many pencils are left?



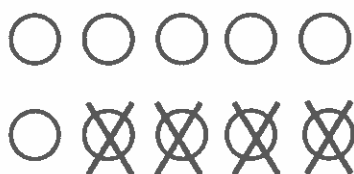
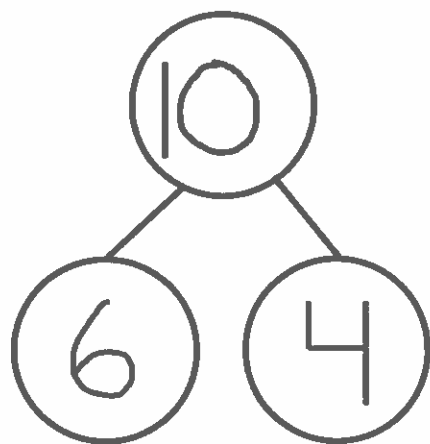
I draw 9 circles the 5-group way. Then, I cross off 4, and I have 5 left! That means 4 and 5 are parts of 9.

$$\underline{9} - \underline{4} = \underline{5}$$

GK-M4-Lesson 36

Fill in the number bond and number sentence. Cross off the part that goes away.

Mackenzie had 10 buttons on her jacket. 4 buttons broke off her jacket. How many buttons are left on her jacket?



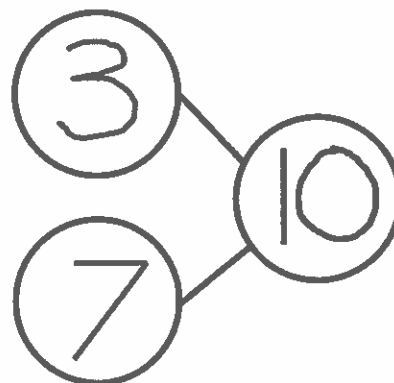
I know there were 10 buttons on the jacket. 4 broke and fell off. There are 6 buttons left on the jacket. I already knew that 4 and 6 make 10. So, 10 take away 4 is 6.

$$10 - 4 = 6$$

Make a 5-group drawing to show the story. Fill in the number bond and number sentence. Cross off the part that goes away.

Bob had 10 toy cars. 3 cars drove away. How many cars are left?

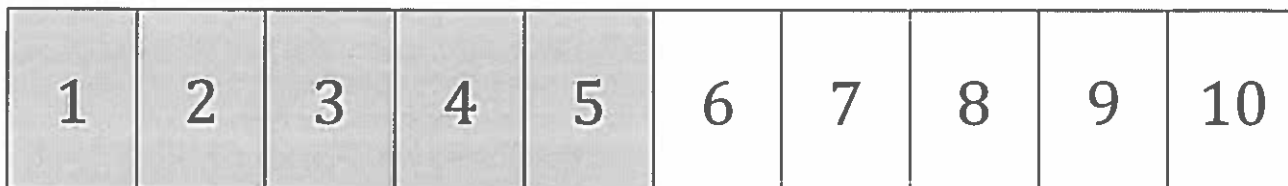
I made a 5-group drawing to show the cars. 3 drove away, so I crossed out 3. There are 7 cars left.



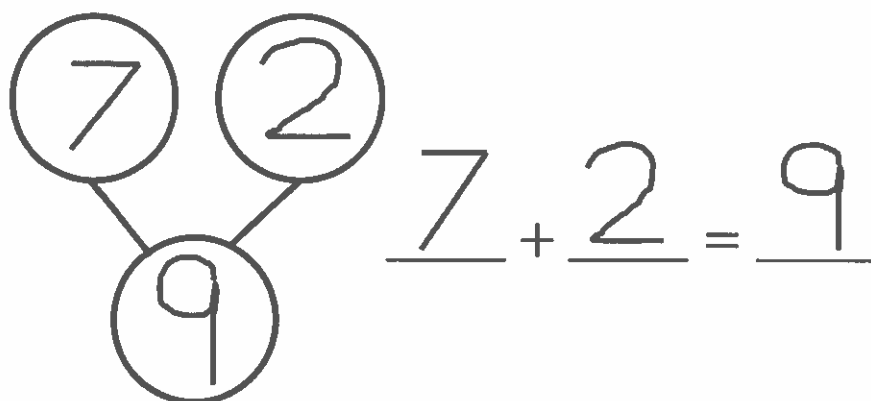
$$10 - 3 = 7$$

GK-M4-Lesson 37

Listen to each story. Show the story with your fingers on the number path. Then, fill in the number sentence and number bond.

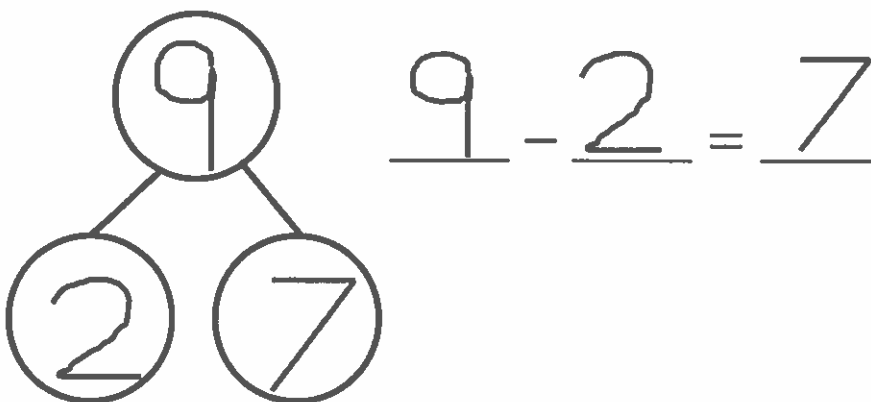


Joey had 7 pennies. He found 2 pennies in the couch. How many pennies does Joey have now?

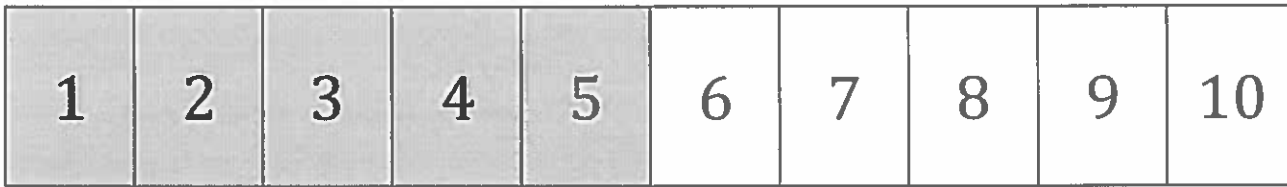


I use the number path to help me solve the problem! I put my finger on 7 because Joey had 7 pennies. He found 2 pennies, so I hop forward 2 on the number path. My fingers stop on the 9. Joey has 9 pennies!

Joey gave the 2 pennies to his dad. How many pennies does Joey have now?

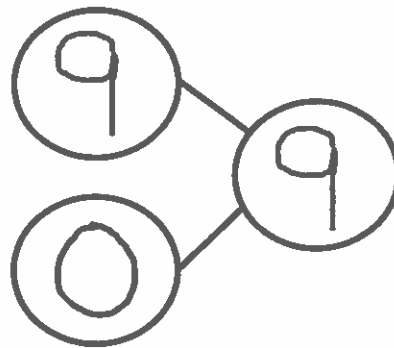


I know that Joey has 9 pennies. He gave his dad 2 pennies, so I hop 2 backward on the number path. My fingers stop on the 7. Now, Joey has 7 pennies!



There were 9 children waiting for the school bus. No more children came to the bus stop. How many children are waiting now?

$$\underline{9} + \underline{0} = \underline{9}$$



I know that 9 children are at the bus stop. I put my finger on the 9 on the number path. No more children came, so my finger doesn't move. There are 9 children waiting at the bus stop.

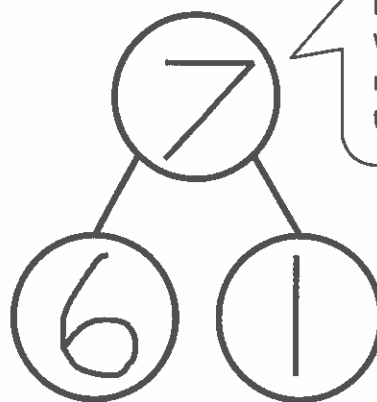
GK-M4-Lesson 38

Follow the instructions to color the 5-group. Then, fill in the number sentence and number bond to match.

Color 6 squares green and 1 square blue.



$$\underline{6} + \underline{1} = \underline{7}$$



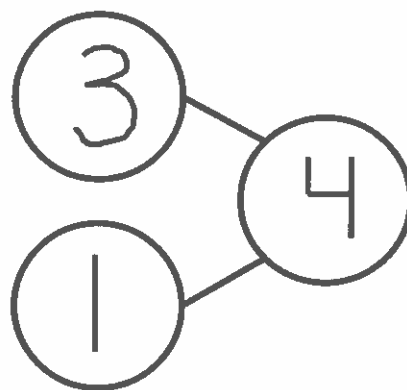
I see the pattern!
When I add 1 to a
number, it's just
the next number.

Color 3 squares green and 1 square blue.



$$\underline{3} + \underline{1} = \underline{4}$$

Adding 1 is easy!
3. 1 more is 4.



GK-M4-Lesson 39

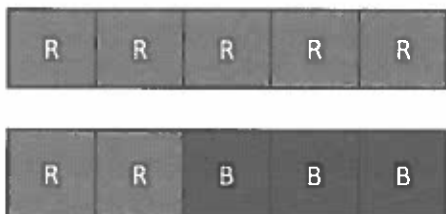
Draw dots to make 10. Finish the number bonds. Draw a line from the 5-group to the matching number bond.

There are 6 dots.
To make 10, I draw
more dots until I
make it to 10.

I know my partners
to 10. 8 needs 2
more to make 10.

GK-M4-Lesson 40

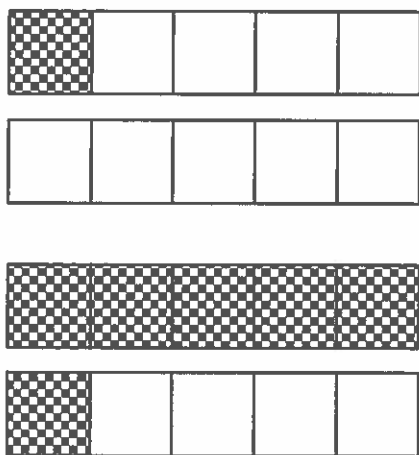
Color 7 boxes red the 5-group way. Color the rest blue to make 10. Fill in the number sentence.



$$\boxed{7} + \boxed{3} = \boxed{10}$$

I did it! To color the 5-group way, I started with the top row, left to right. I colored 7 red and 3 blue to make 10.

Match.



$$6 + 4 = 10$$

$$1 + 9 = 10$$

To find the sentence that matches, I counted the checkered squares first to find one partner of 10. Then, I count the white squares to find the second partner of 10.

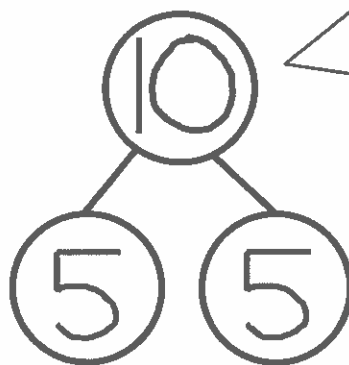
GK-M4-Lesson 41

Complete a number bond and a number sentence for the problem:

Color some blocks orange and the rest yellow to make 10. All of the yellow blocks fell off the table. How many blocks are left?

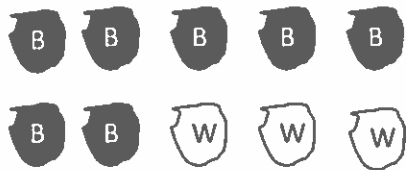


$$10 - 5 = 5$$

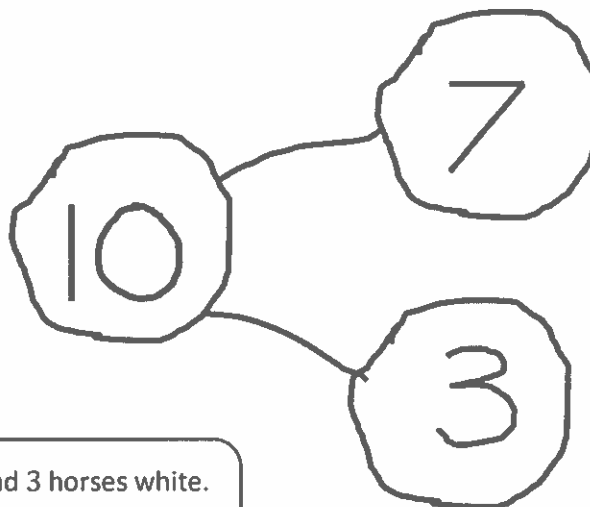


My parts of 10 are 5 and 5. If 5 yellow blocks fell off the table, then 10 take away 5 equals 5. There are 5 blocks left!

There were 10 horses in the yard. Some were brown, and some were white. Draw the horses the 5-group way. The brown ones went back into the barn. How many horses were still in the yard? Draw a number bond, and write a subtraction sentence.



$$10 - 7 = 3$$



I made 7 horses brown and 3 horses white. 7 brown horses went to the barn, so 3 white horses were still in the yard!