



WORKBOOKS



Problem Solving

Problem Solving

Learn and Explore



Meets Common Core standards

Makes learning easy and fun

Builds and boosts key skills



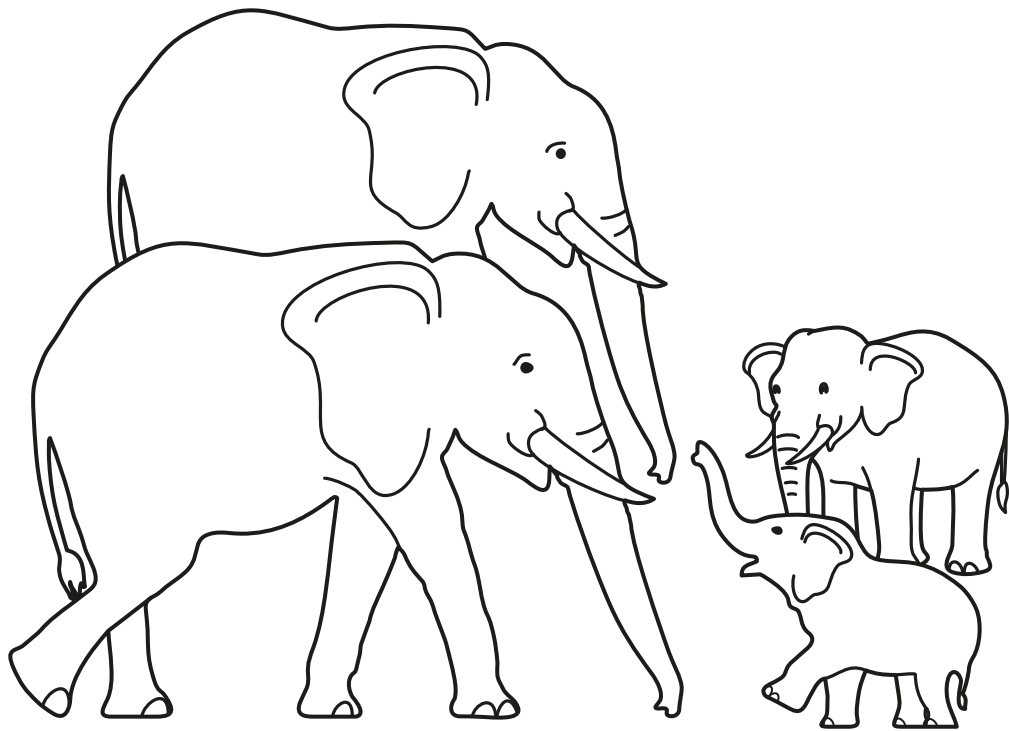
WORKBOOKS



Problem Solving

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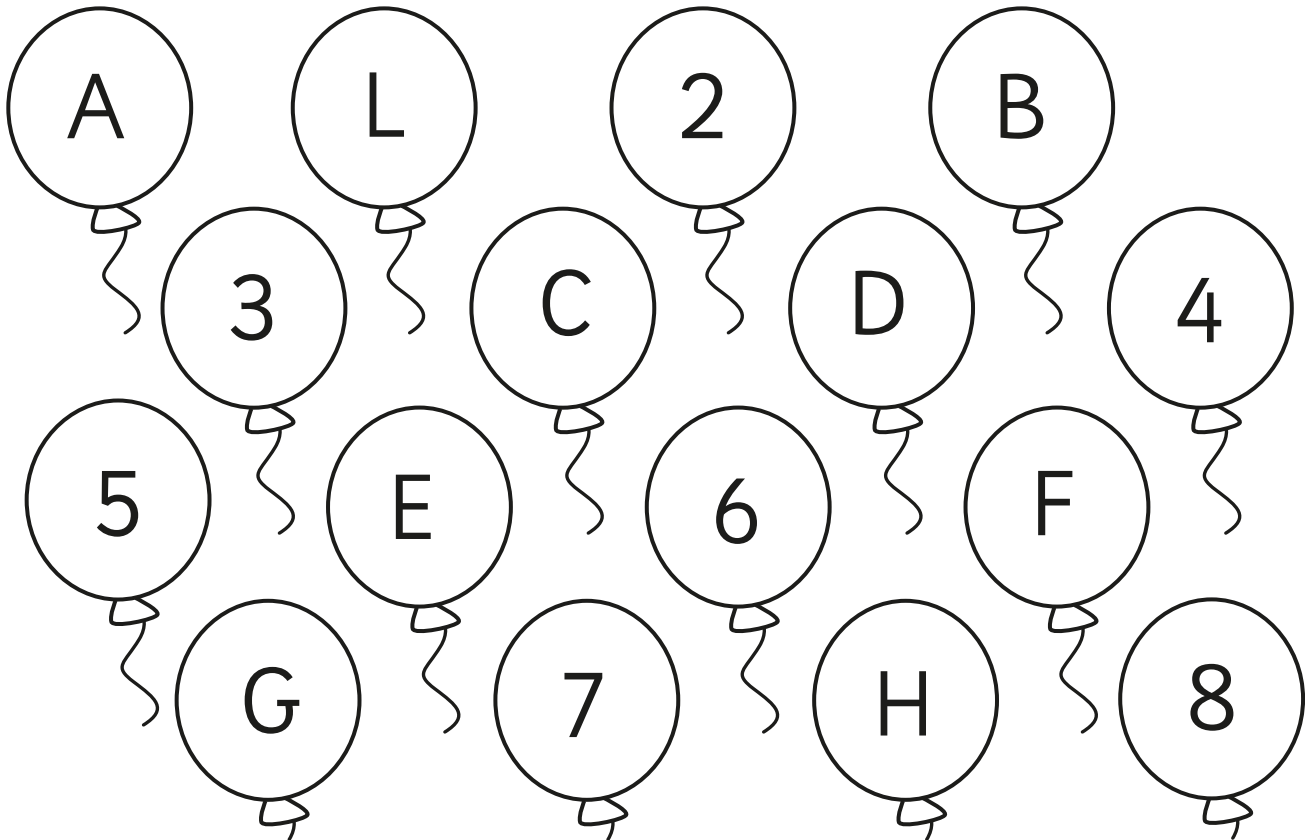


Numbers and Letters

GOAL

Learn to distinguish numbers from letters.

Look at the balloons. Color the balloons that have numbers on them.



Trace along the dotted lines to write these numbers.

1

2

3

4

5

6

7

8

9

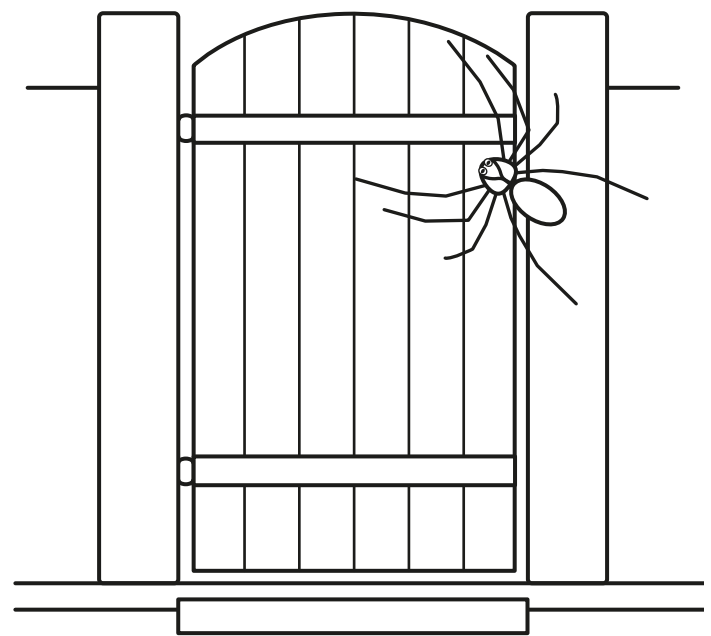
10

Learn to identify and count up to 8 objects.

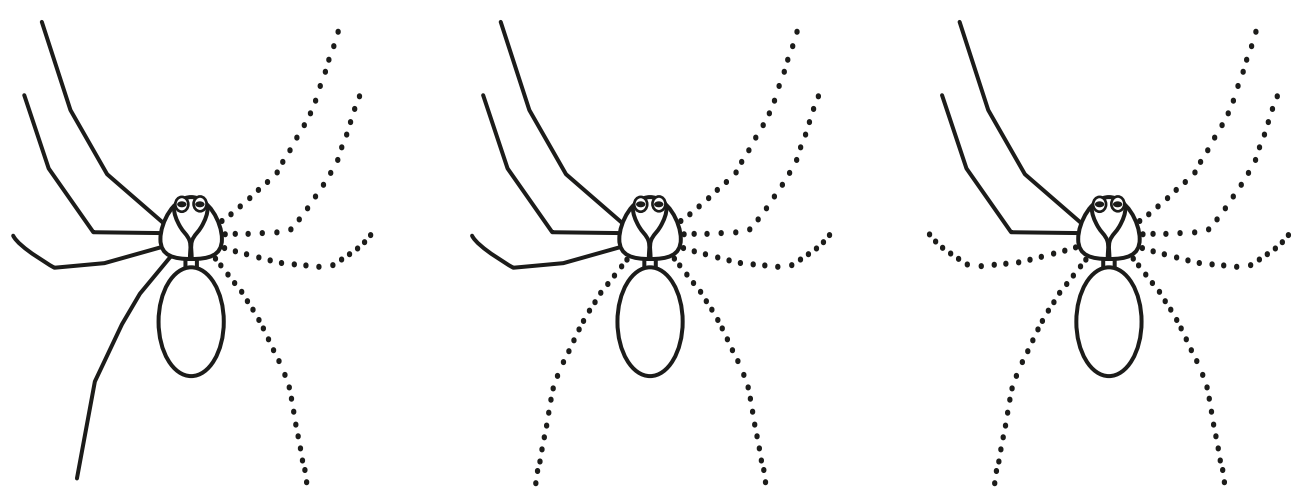
Read the poem below. Then count the legs on the spider in the picture. Circle the correct number of legs to complete the poem.

Do you see that spider sitting on the gate?
If you can count its legs, you will see that it has ...

4 6 8



The spiders shown below are missing some legs. Trace over the dots so that each spider has eight legs. Then count out loud how many legs each spider has.





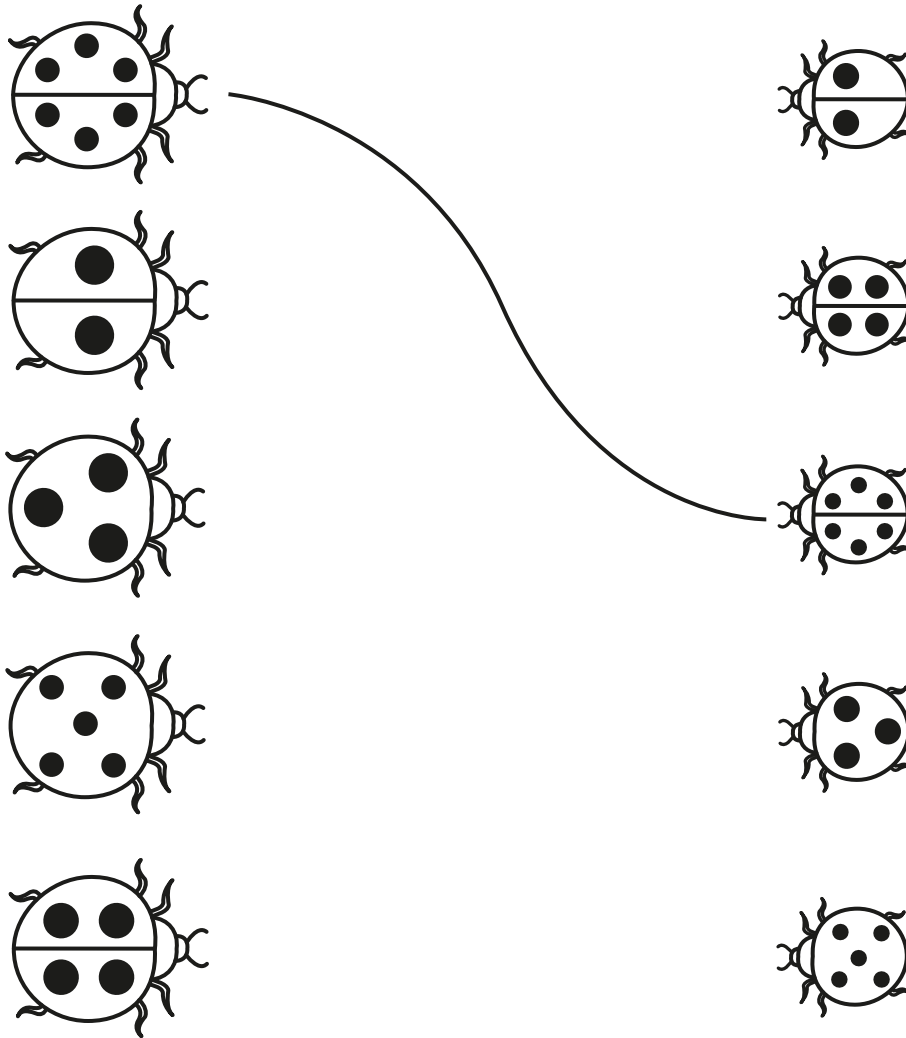
Count to 10

GOAL

Learn to identify and count up to 10 objects.

Draw lines to match each mother ladybug to her baby.

Hint: Mother and baby ladybugs have the same number of spots.



Count the total number of ladybugs on this page.
Circle the correct number below.

6

8

10



Learn to match numbers with groups of objects.

Draw lines to match each group of tennis balls on the left with the correct number of objects on the right.

Group 1: 1 tennis ball
 Group 2: 2 tennis balls
 Group 3: 3 tennis balls
 Group 4: 4 tennis balls
 Group 5: 5 tennis balls

3
 4
 2
 5
 1



Count and Write

GOAL

Practice counting and writing numbers up to 10.

Moving from left to right, number the cupcakes in the top row. Write the numbers from 1 to 5 beneath the cupcakes. Then do the same for the bottom row, and number them from 6 to 10.



Now answer these questions by writing the number of the correct cupcake in each box.

Which cupcake has a smiley face on it?



Which cupcake has a flower on it?



Which cupcake has a duck on it?



Which cupcake has a star on it?

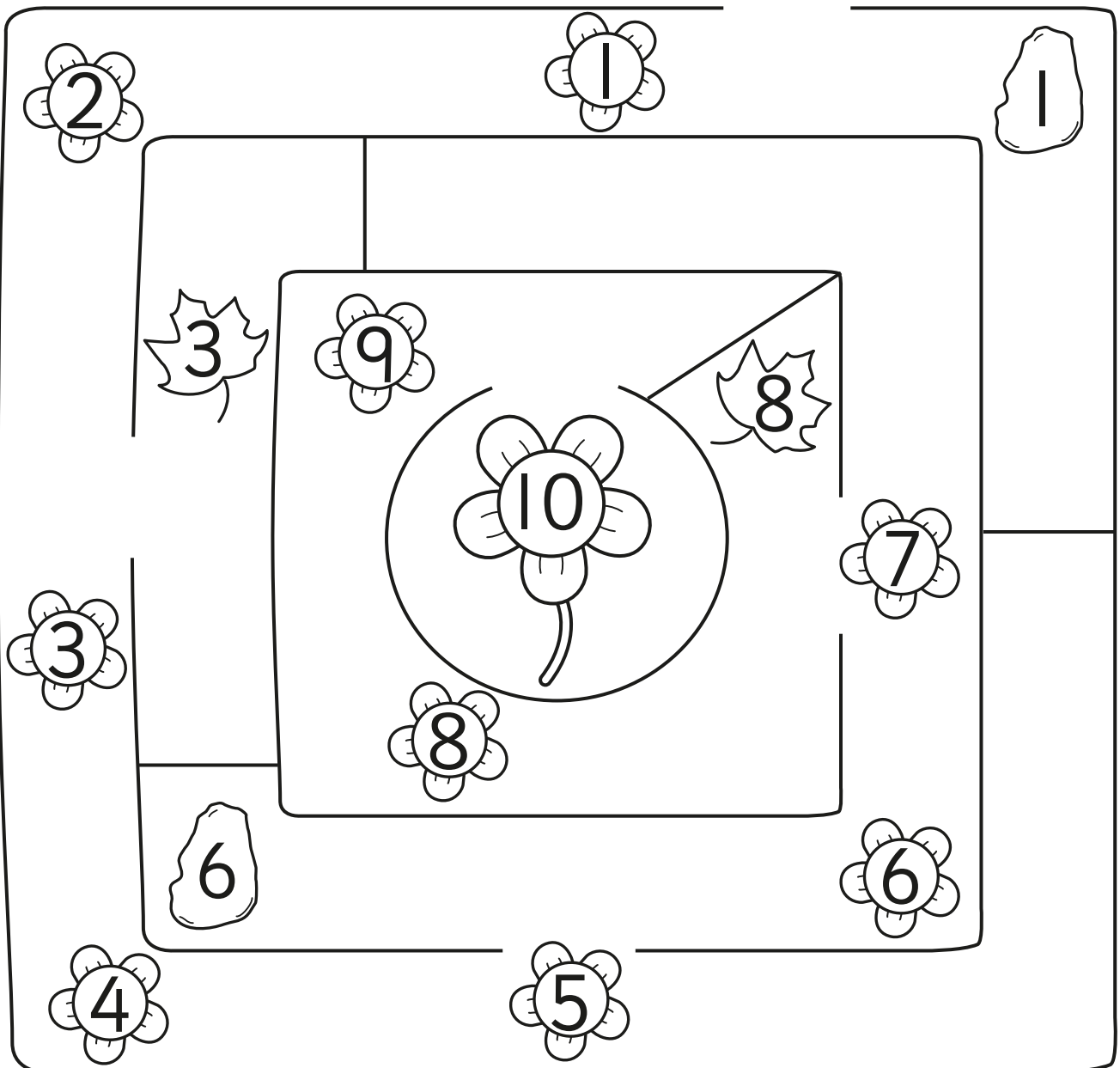
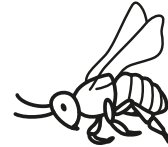




Learn to identify and follow numbers in a sequence.

GOAL

Help the bee find her way to the biggest flower. **Hint:** Follow the small flowers, starting with flower 1, then move on to flower 2, and so on. Be sure to avoid the rocks and leaves!



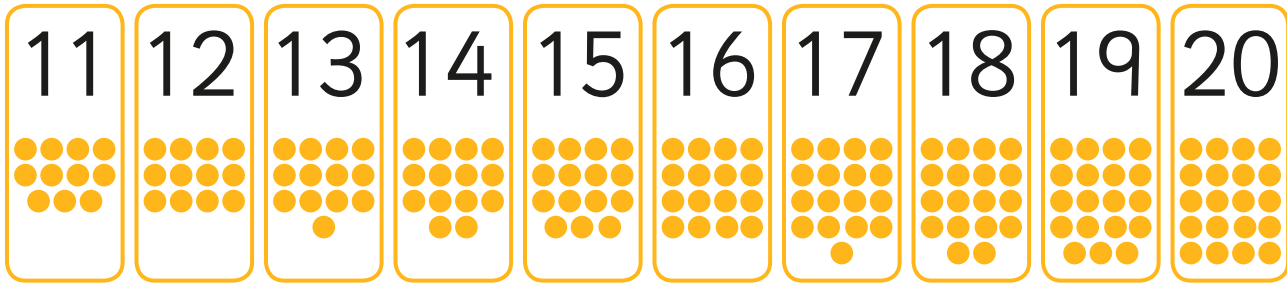
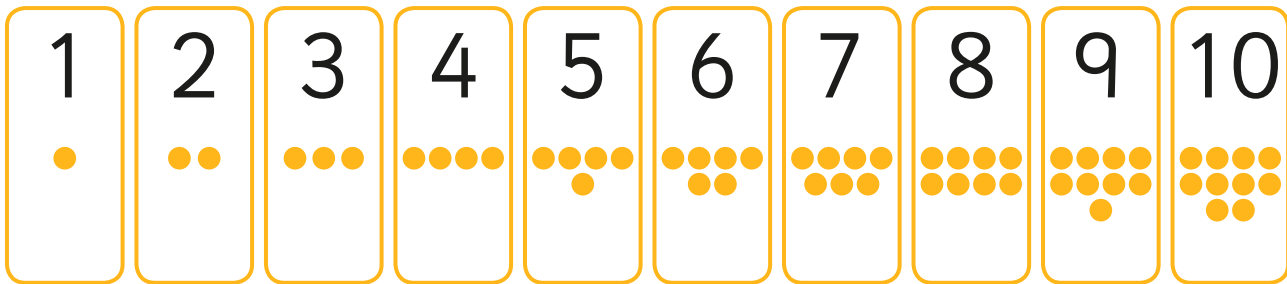


Counting in Sequence

GOAL

Practice counting in sequence.

Look at this sequence of numbered boxes.



Color box number 4.

Color box number 15.

Color the box that comes before box number 9.

Color the box that comes after box number 11.

Circle the number on the box after box number 4.

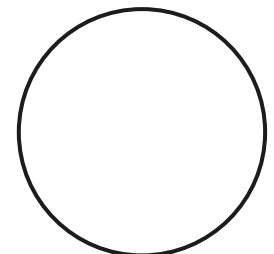
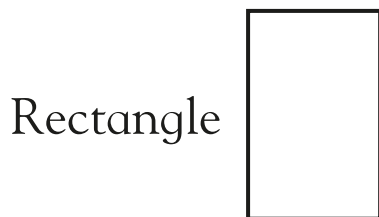
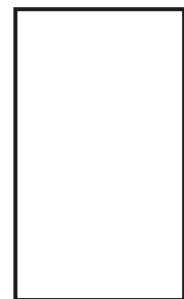
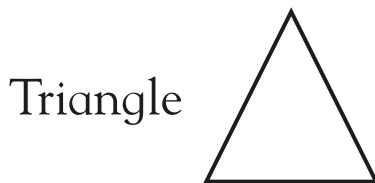
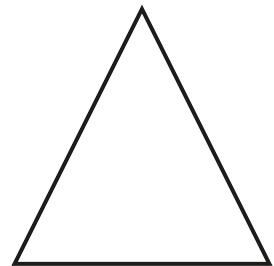
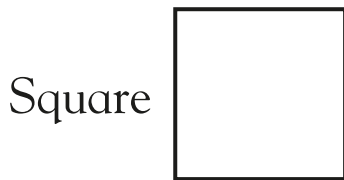
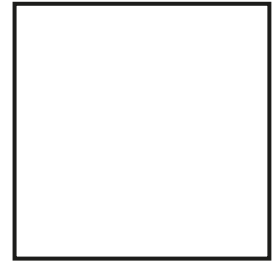
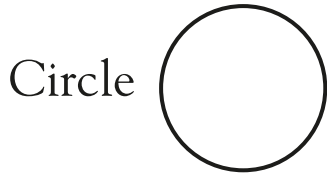
Circle the number on the box after box number 16.

Circle the number on the box before box number 20.



Learn to identify and match shapes of different sizes.

Draw a line from each shape on the left to the same shape on the right.

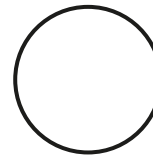
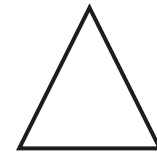
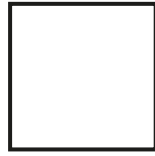
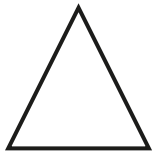
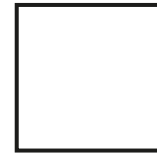
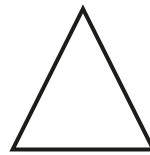
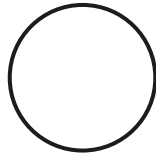
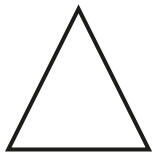
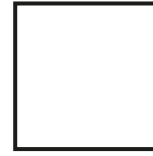
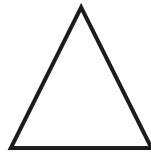
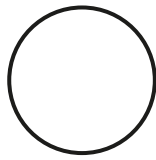




Count the Shapes

GOAL

Learn to identify different shapes and count them.



Count the circles. How many are there?



Count the squares. How many are there?



Count the triangles. How many are there?



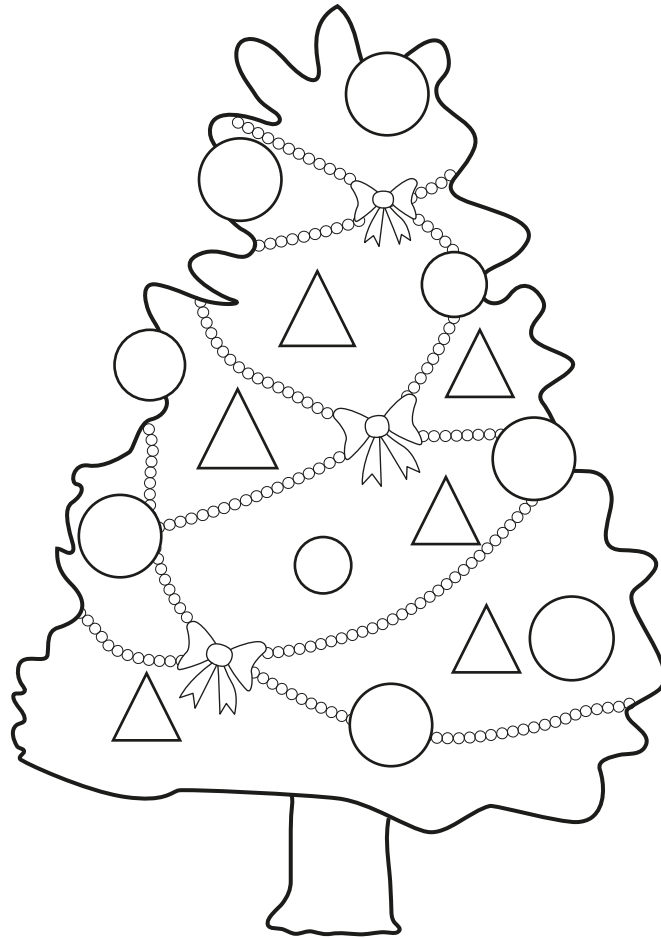
Count the rectangles. How many are there?





Learn to identify triangles.

Look at the decorations on this tree. Color the triangles.
Remember: A triangle is a shape with three straight sides.



Count the triangles in the row of shapes below.
 How many are there? Circle the correct number.



6

7

8

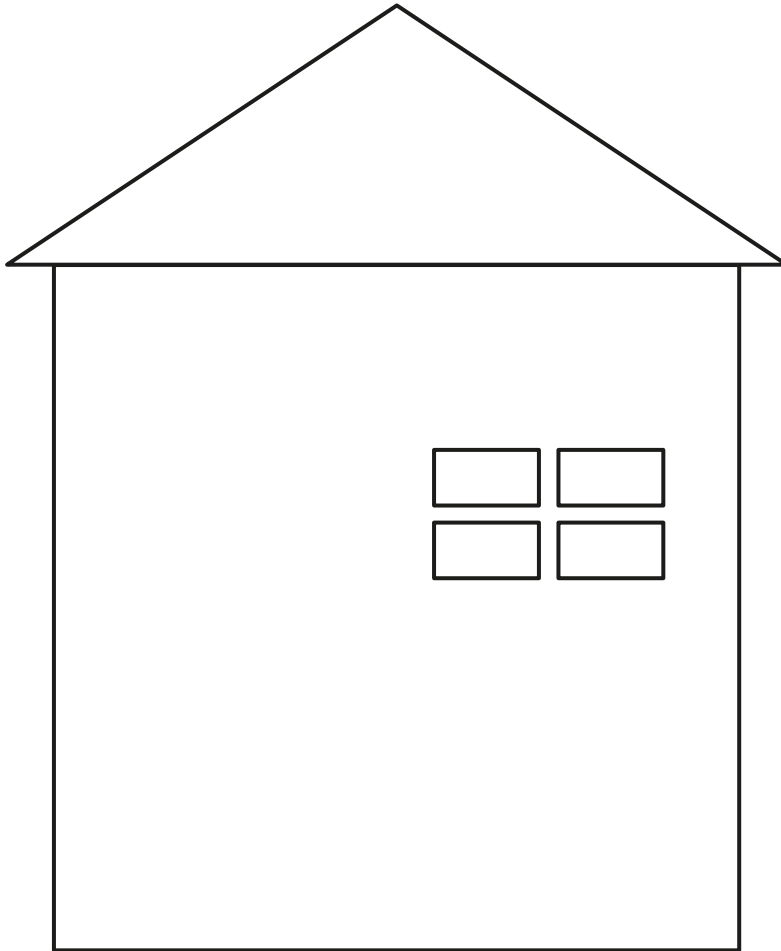


Fun with Shapes

GOAL

Learn to relate basic shapes to common objects.

Look at this drawing of a house. The door is missing!
Finish the drawing by adding the front door.



What shape is the front door?

How many shapes make up the finished house?
Circle the correct number below.

5

7

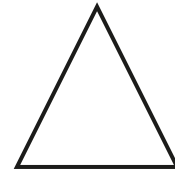
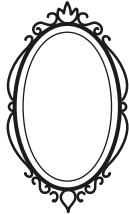
8



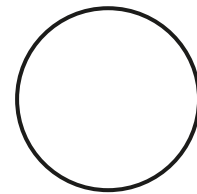
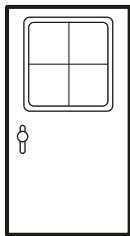
Learn to identify the shapes of common objects.

Draw a line from each picture on the left to its shape on the right.

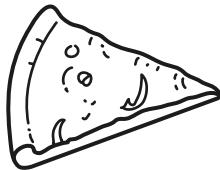
mirror



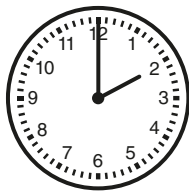
door



pizza



clock



Read the rhyme and solve the puzzle. Draw the shape in the box.

I have four sides.
They're all the same.
I have four corners.
Now guess my name!





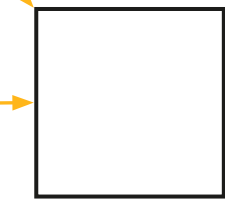
Sides and Corners

GOAL

Learn the characteristics of some common shapes.

Look at these shapes. Circle the answers to the questions.

Corner



Square

How many sides does a square have?

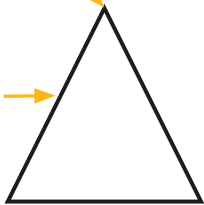
2 3 4 5

How many corners does a square have?

2 3 4 5

Corner

Side



Triangle

How many sides does a triangle have?

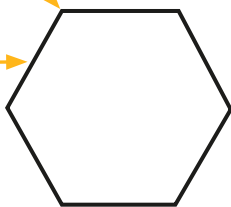
2 3 4 5

How many corners does a triangle have?

2 3 4 5

Corner

Side



Hexagon

How many sides does a hexagon have?

4 5 6 7

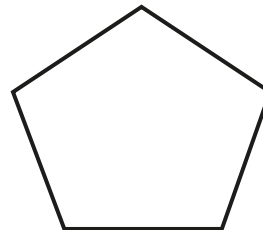
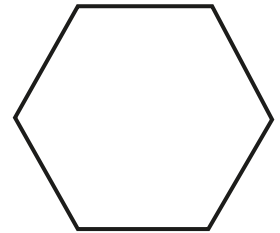
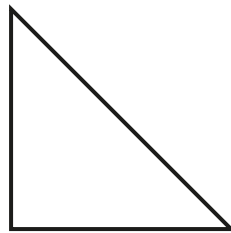
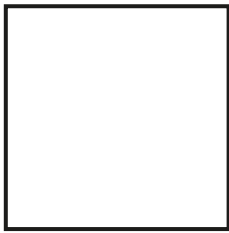
How many corners does a hexagon have?

4 5 6 7

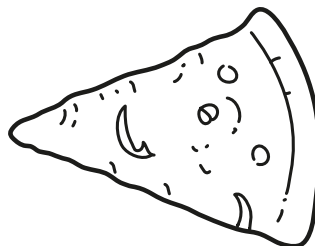


Practice counting the corners of different shapes.

Count how many corners each shape has. Write the correct number in the box below each shape.



Look at these objects. Circle the one that is a square shape.





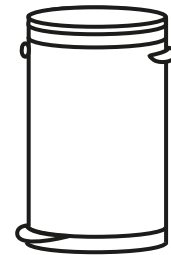
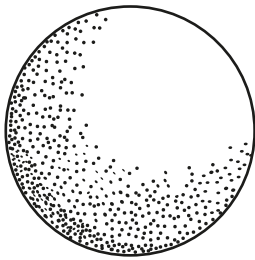
3-D Shapes

GOAL

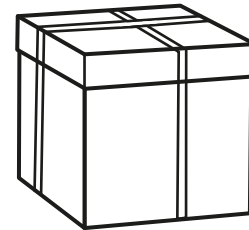
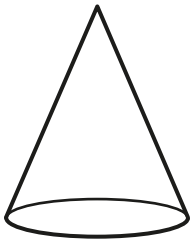
Learn to identify 3-D shapes. 3-D shapes have three dimensions: length, height, and depth.

Draw a line from each 3-D shape on the left to the object it matches on the right.

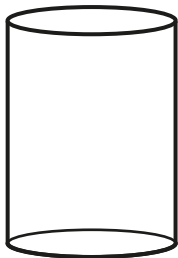
sphere



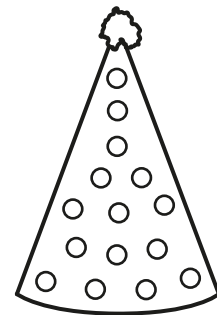
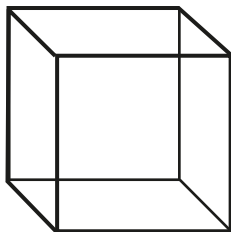
cone



cylinder



cube





Learn more about 3-D shapes.

How many faces does a cylinder have? Circle the correct number.

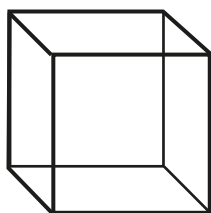


1

2

3

How many faces does a cube have? Circle the correct number.

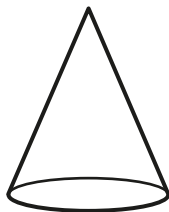


3

6

7

How many faces does a cone have? Circle the correct number.

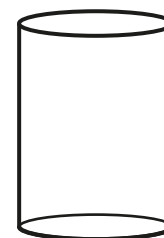
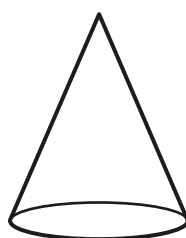
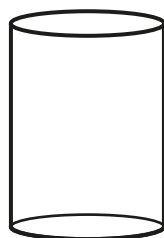


2

3

4

Circle the shape that is different.



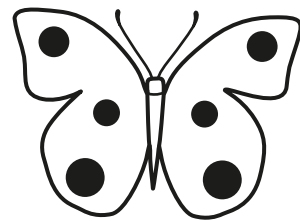
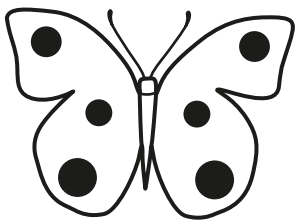
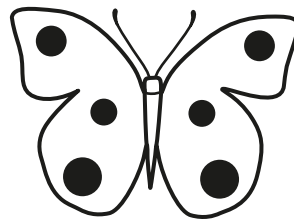
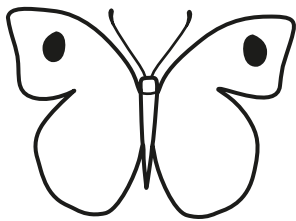
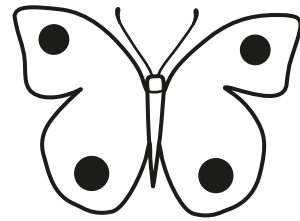
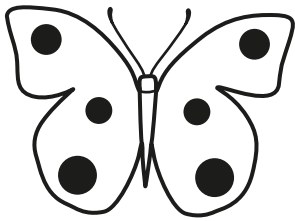


Patterns

GOAL

Learn to recognize patterns.

Look at these butterflies carefully. Circle the four butterflies with the same pattern on their wings.



Count all the butterflies shown above. How many are there? Circle the correct answer.

4

5

6

Complete the Pattern



GOAL

Learn to complete a pattern.

Draw the shape to complete the pattern in each row.

○ □ ○ □

△ ○ △ ○

□● ○● □● ○●

□1 □2 □3 □4

△○ ○△ △○ ○△

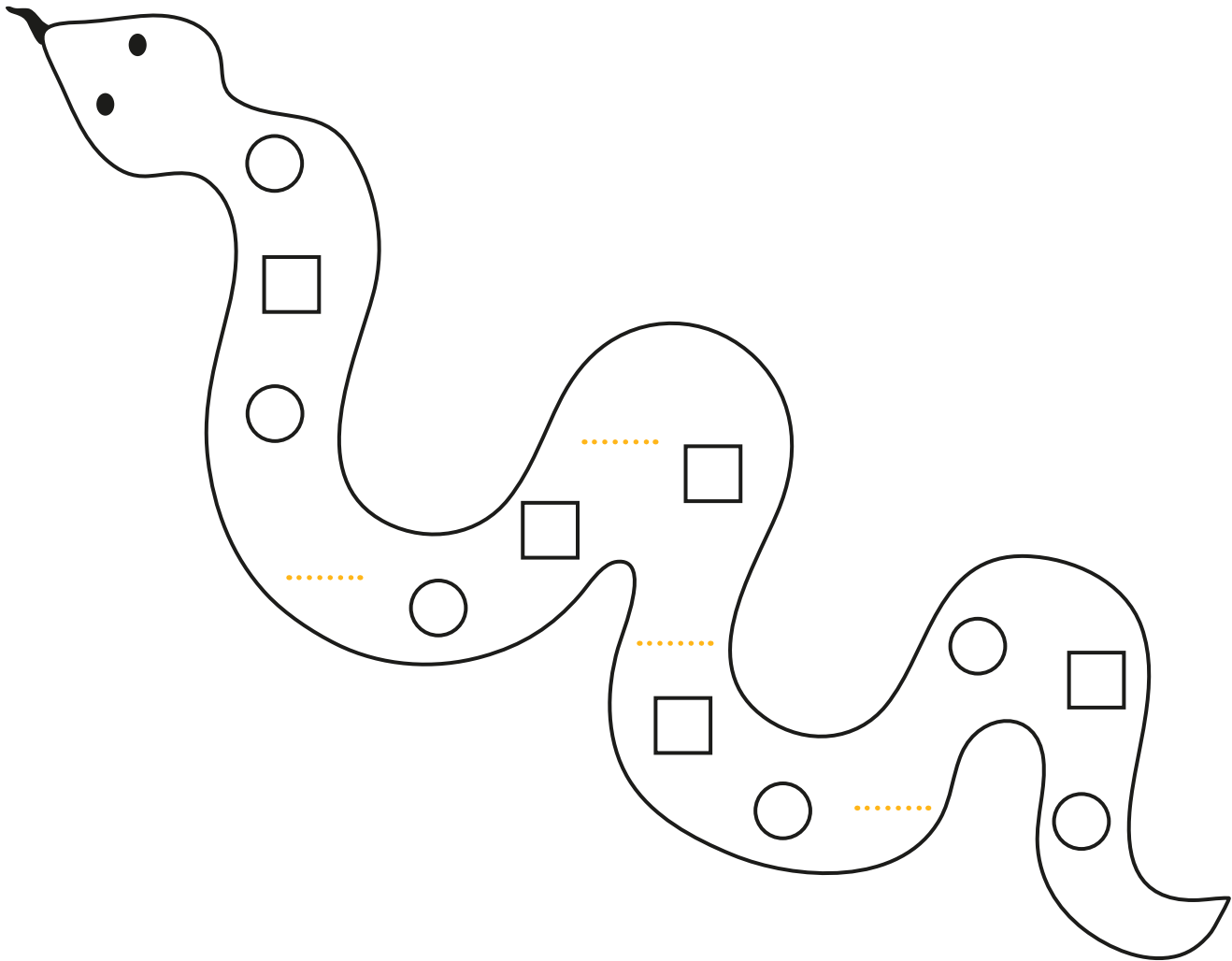


Complete the Pattern

GOAL

Practice completing a pattern of shapes.

Jake the snake has a pattern of shapes on his scaly skin. Complete the pattern by drawing the missing shapes on Jake. Then answer the questions below.



How many circles are there in the pattern of shapes on Jake?



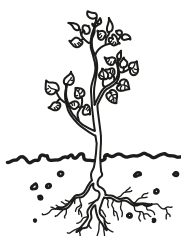
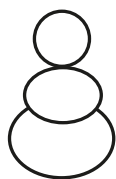
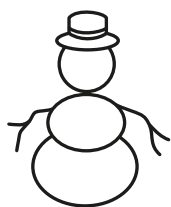
How many squares are there in the pattern of shapes on Jake?





Learn to put events in the correct order.

Each line of pictures below shows a sequence of events. But the pictures are in the wrong order! Can you put them in the correct order? Write “1” under the picture that shows what happens first, “2” under the picture that shows what happens next, and “3” under the picture that shows what happens last.



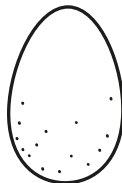
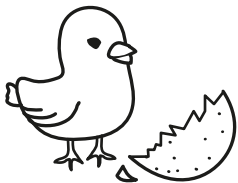
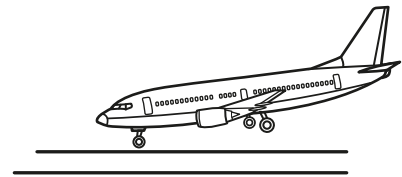
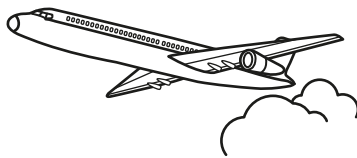
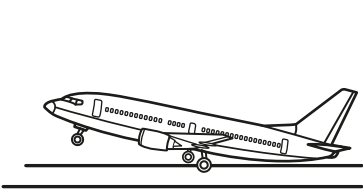


Tell a Story

GOAL

Learn to order pictures to tell a story.

Each line of pictures below tells a story. Write “1” under the picture that shows what happens first, “2” under the picture that shows what happens next, and “3” under the picture that shows what happens last.





Learn to gather information from pictures.

Look at the picture. Then answer the questions.



How many children are in the sandbox?

children

How many shovels are in the sandbox?

shovels

How many balls are in the sandbox?

balls

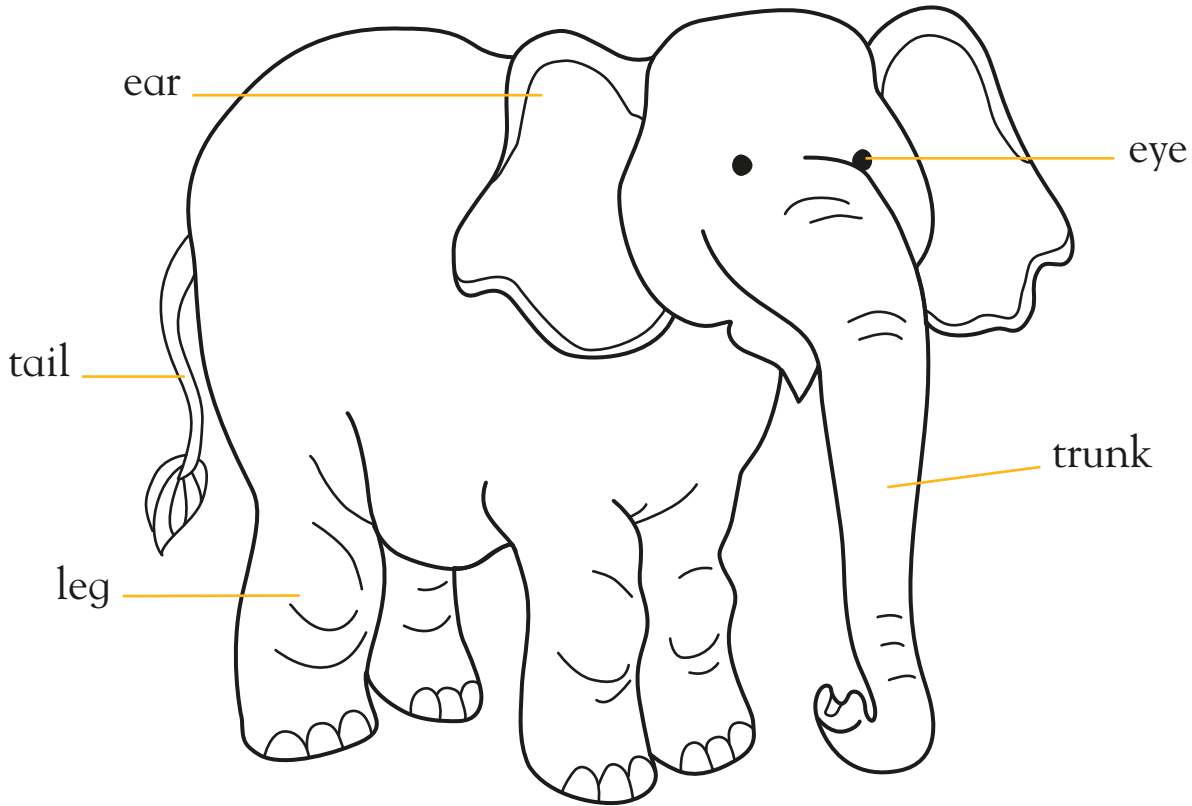
How many pails are in the sandbox?

pails



Practice gathering information from pictures.

Meet Ellie the elephant. Then circle the correct number to complete each sentence.



Ellie has **2** **3** **4** ears.

She has **1** **2** **3** tail(s).

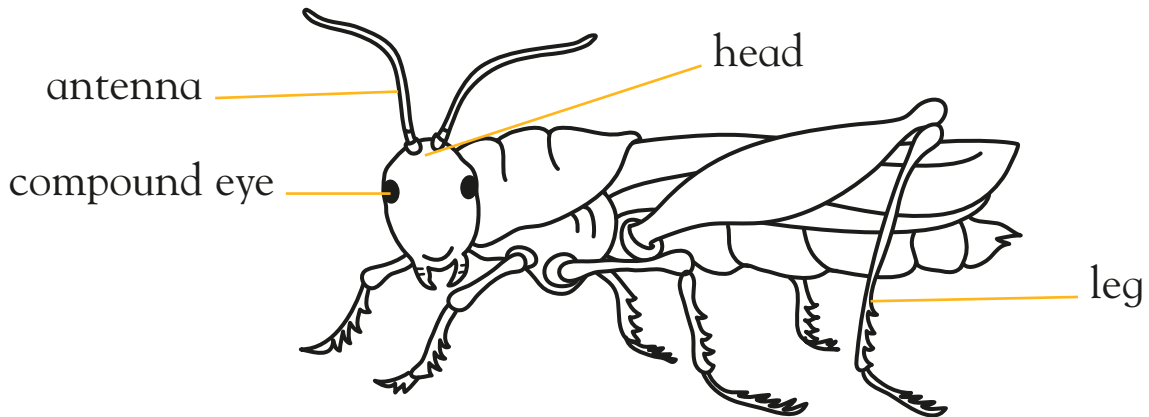
She has **3** **4** **6** legs.

She has **1** **3** **5** trunk(s).



Practice gathering information from pictures.

Look at the picture of a grasshopper. Then circle the correct answer to each question.



How many legs does a grasshopper have? 4 2 6

How many compound eyes does a grasshopper have? 2 4 8

How many antennae does a grasshopper have? 6 2 4

How many insects are in the box? Circle the answer.



3 4 6

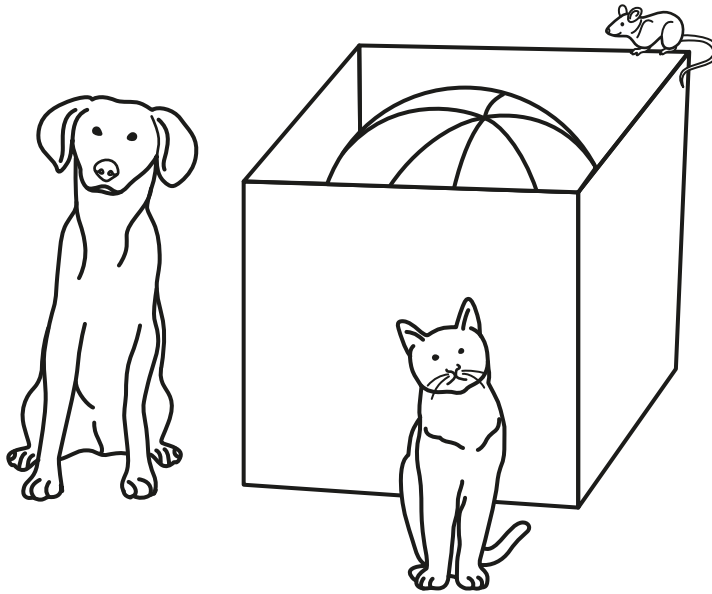


Position Words

GOAL

Learn words and phrases that tell you where something is.

Look at the picture. Then circle the correct answer to each question below.



Where is the cat?

in front of the box

on top of the box

Where is the ball?

next to the box

inside the box

Where is the mouse?

inside the box

on top of the box

Where is the dog?

next to the box

inside the box



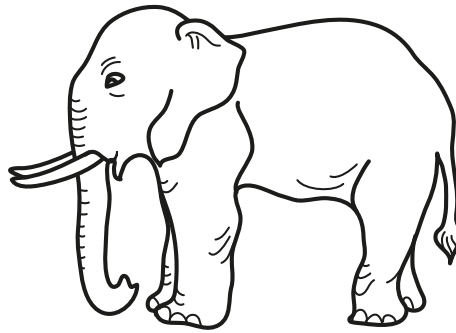
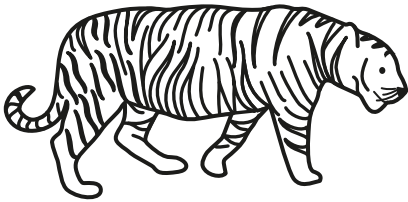
Which is Bigger?

GOAL

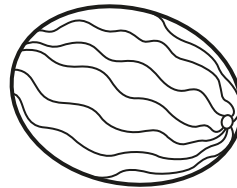
Learn about differences in size.

Circle the correct picture to solve each problem.

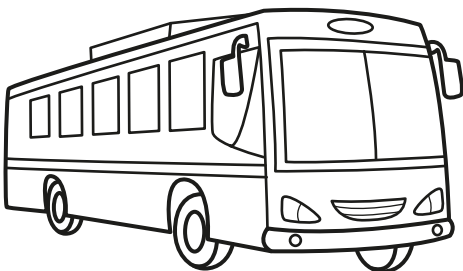
Jeff said an elephant is a big animal.
Luke said a tiger is a big animal, too.
Which animal is bigger?



Holly picked a watermelon at the farm. Patty picked an apple. Which fruit is larger?



Lily and Luke went on a field trip to the zoo. They traveled there in a big bus. Which vehicle did Lily and Luke ride in?





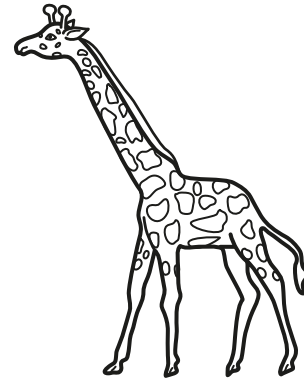
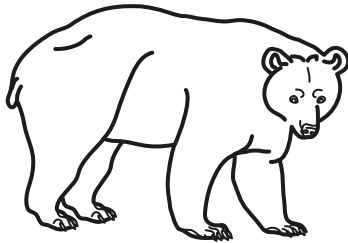
Learn about differences in length.

Circle the correct picture to solve each problem.

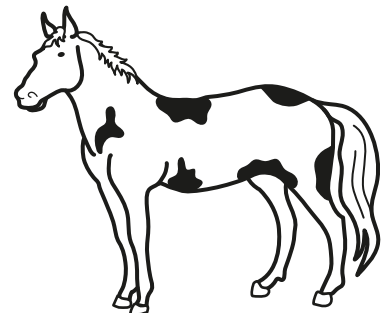
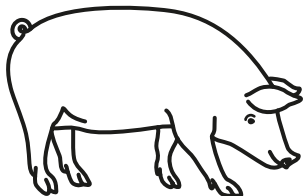
Jen saw two snakes. One was a lot longer than the other.
Which snake is longer?



Kai saw a bear and a giraffe at the zoo. Which animal
has the longer neck?



Jane and Peter visited a farm. They saw pigs and horses.
Which animal has the longer tail?



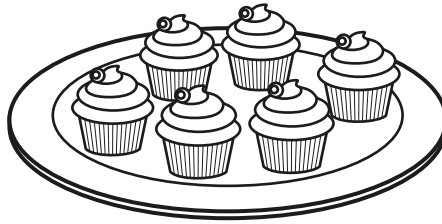
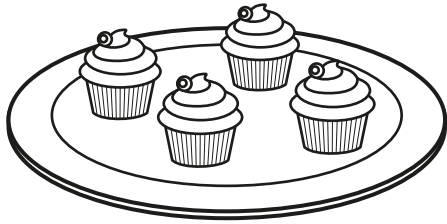


Equal or Not?

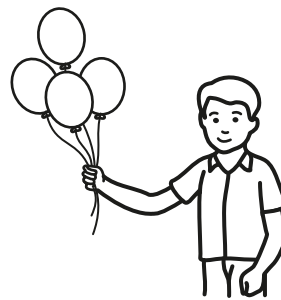
GOAL

Learn to compare quantities.

Look at each pair of pictures. Put a check (✓) in the box if the quantities are equal. Put an X (✗) if they are not.



Which child has more balloons? Circle the correct picture.



Which girl has more books? Circle the correct picture.

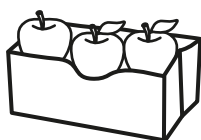




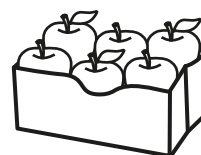
Practice comparing quantities, height, and weight.

Solve these problems by circling the correct picture.

Jade bought three apples and put them in her shopping bag. Molly bought six apples and put them in her bag. Which bag is heavier?

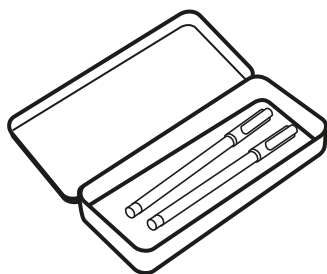


Jade's bag

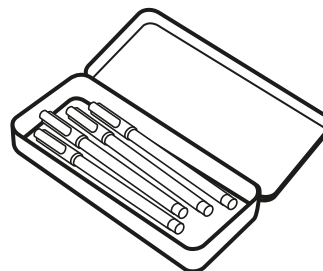


Molly's bag

Allie has two pens in her box. Jim has four pens in his box. Whose box contains more pens?

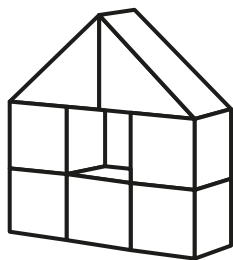


Allie's box

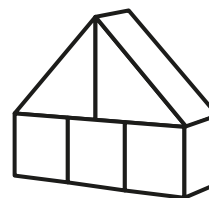


Jim's box

Sue and Mary built houses with toy blocks. Which house is taller?



Sue's toy house



Mary's toy house



Learn to solve simple problems involving addition.

Solve these problems.

Jake has three apples.



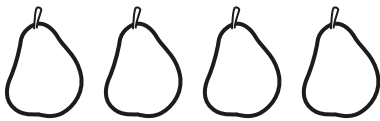
Amy has five apples.



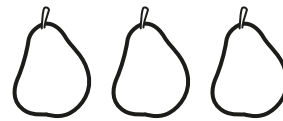
How many apples do Jake and Amy have?



Brian has four pears.



Sally has three pears.



How many pears do Brian and Sally have?



Martin has four bananas.



Alison has one banana.



How many bananas do Martin and Alison have?



How many pieces of fruit do Jake, Amy, Brian, Sally, Martin, and Alison have in all? Count them, then circle the correct number.

15

20

25



Practice solving simple problems involving addition.

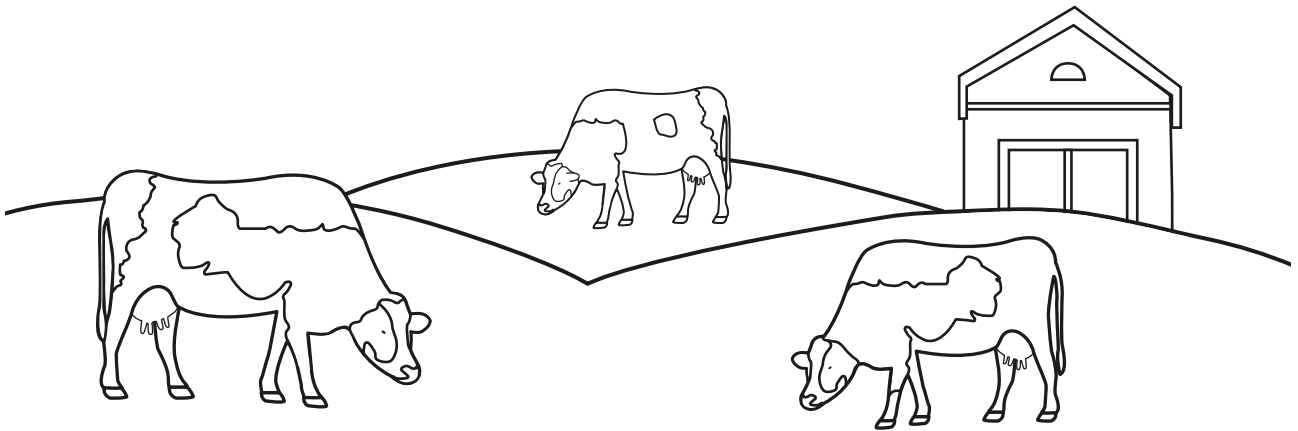
Look at the picture below. How many cows are grazing in the field? Circle the correct number.

1

2

3

4



Lily, Allie, and Emma sit at the same table in preschool. Dan joins them. How many children are at the table now? Circle the correct number.

1

2

3

4

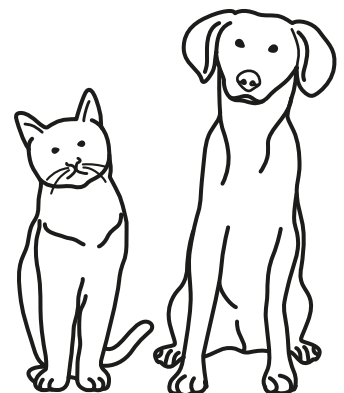
Tim has a dog and a cat. How many pets does Tim have? Circle the correct number.

1

2

3

4





Help with Addition

GOAL

Learn some simple ways to solve addition problems.

Counting on your fingers may help you solve some problems. Use your fingers to solve this problem.

Jane buys four apples. Her mother gives her three more. How many apples does Jane have now?



apples

You can also solve problems by drawing pictures. Draw pictures to help you solve this problem.

Sally has six balls.
Jim gives her two more.

+

How many balls does Sally have now?



balls

You may find that the best way to solve a problem is to write a number sentence. Circle the number sentence below that tells you the total number of balls Sally has.

$$5 + 4 = 9$$

$$6 + 2 = 8$$



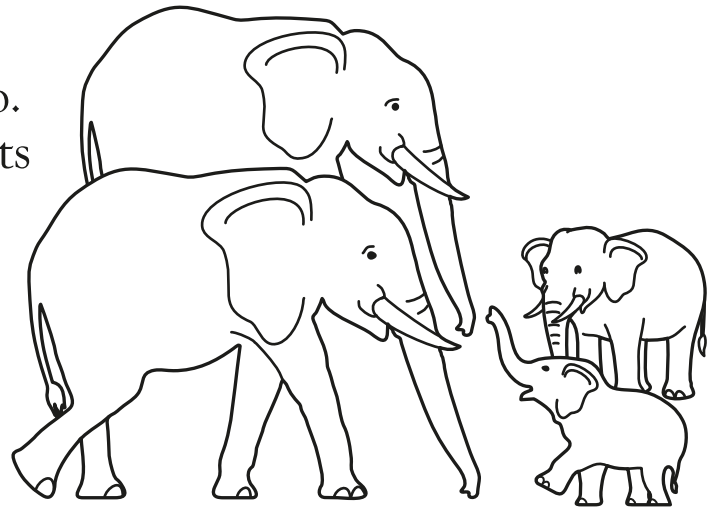
Learn to solve problems involving numbers up to 10.

Solve these problems.

Beth and Mario visit the zoo.
They see two adult elephants
and two baby elephants.
How many elephants do
they see altogether?



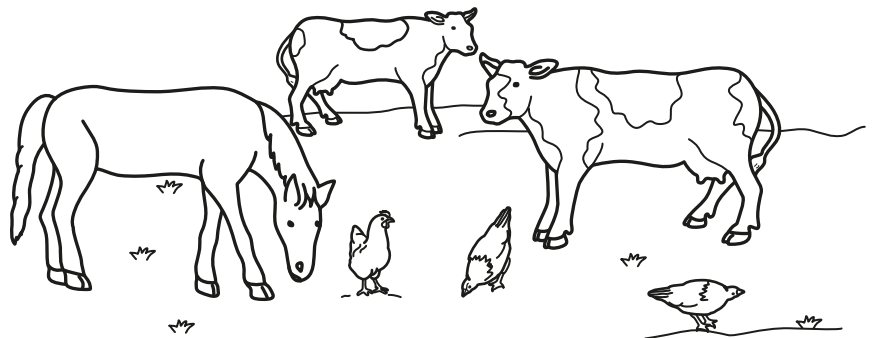
elephants



Mrs. Brown has a small farm. She has one horse, two cows,
and three hens on her farm. How many animals live on
Mrs. Brown's farm?



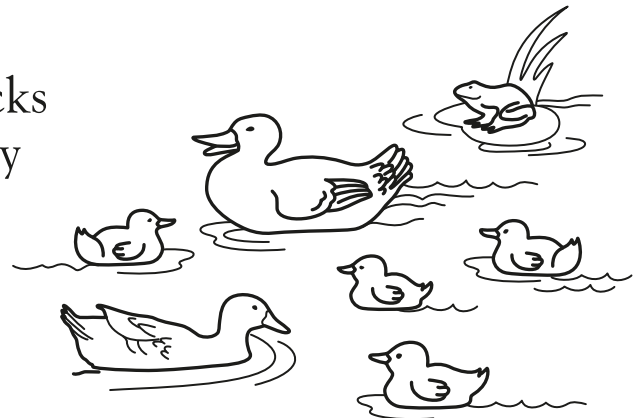
animals



Jenny and Paolo visit a pond.
They see one frog and two ducks
with four ducklings. How many
animals do Jenny and Paolo
see altogether?



animals





Adding Up to 20

GOAL

Learn to solve problems involving numbers up to 20.

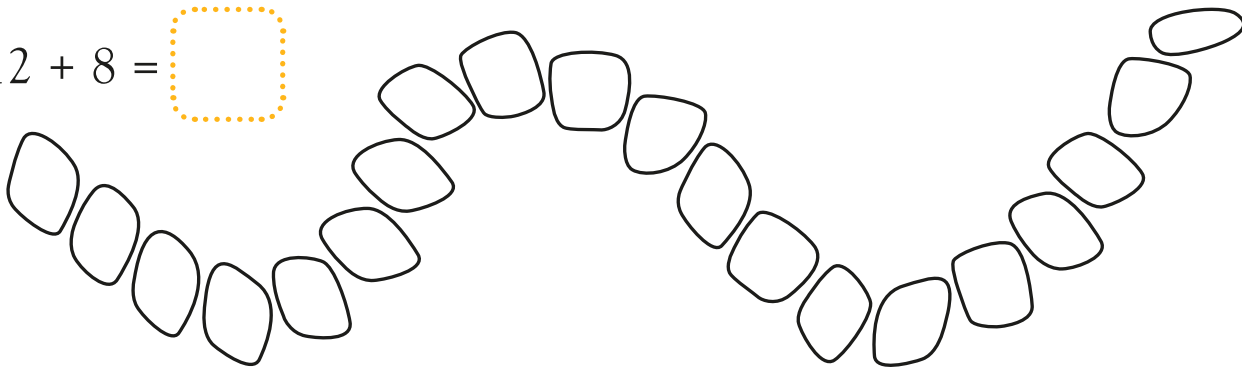
Read these problems and complete the number sentence to solve them.

Judy has fourteen books. John gives her four more.
How many books does Judy have now?

$$14 + 4 = \square$$

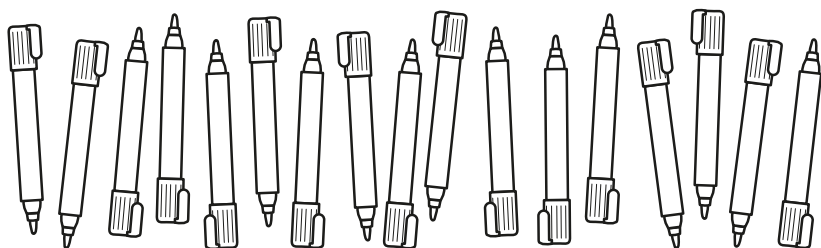
Jay is walking along a stone path. He walks over twelve stones and stops. Then he walks over eight more stones.
How many stones does Jay walk over in all?

$$12 + 8 = \square$$



Gary has eleven markers. Kim gives him six more.
How many markers does Gary have now?

$$11 + 6 = \square$$





Learn to solve addition problems using a chart.

Here is a chart showing the numbers 1 to 50.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Point to the number 31 on the chart. Then add 4 to 31 by counting forward four numbers. What number is your finger on now? Write it in the box.

Now solve these problems, counting numbers forward along the chart to help you.

Alfie finds two seashells on the beach. Then he finds ten more shells. How many shells does Alfie find altogether?

Ben has ten coins in his collection. His dad gives him twelve more. How many coins does Ben now have?

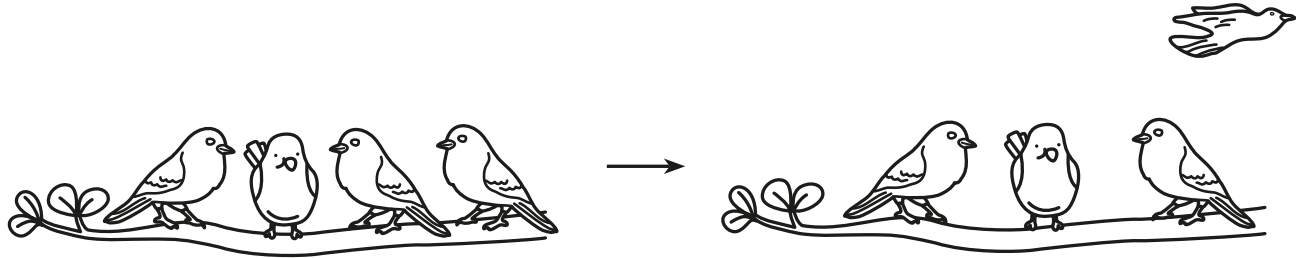


Subtraction

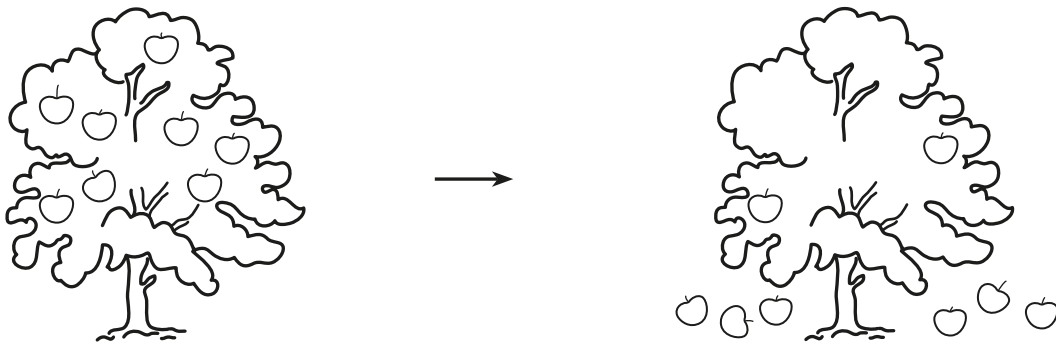
GOAL

Learn to solve subtraction problems using pictures.

Look at each picture story. Then circle the correct answer.



How many birds are left on the branch? 2 3 4



How many apples are left on the tree? 2 3 4



Count the mice. How many are there?

Two mice run away. Cross out (X) two of the mice. How many are left?

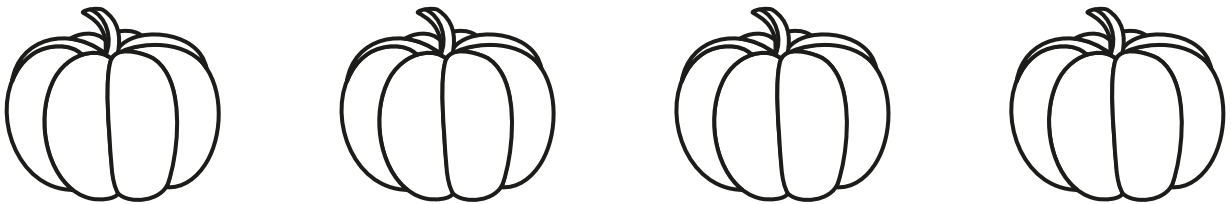


Practice some simple subtraction.

Use the pictures to help solve these problems. Cross out (X) the objects to subtract them. Then count the remaining objects and write the answer.

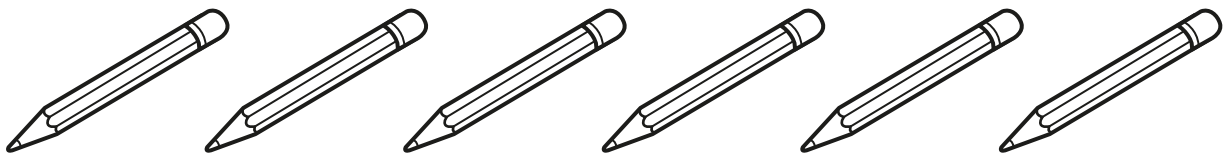
Isabella picks four pumpkins. She gives one to her mother. How many pumpkins does she have left?

pumpkins



Hollie has six pencils. She gives two to Ellen. How many pencils does Hollie have left?

pencils



Karl buys six stickers. He loses one of them. How many stickers does Karl have left?

stickers





More Subtraction

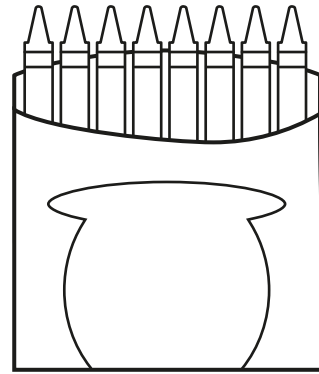
GOAL

Learn to solve subtraction problems by writing number sentences.

Read each problem. Then write a number sentence to find the answer.

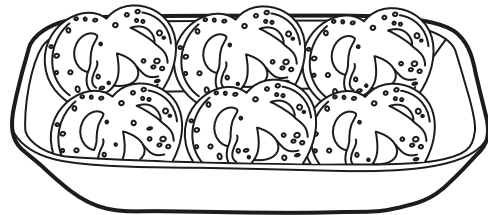
Edgar buys a box of eight crayons. He loses two of them. How many crayons does Edgar have left?

$$\square - \square = \square \text{ crayons}$$



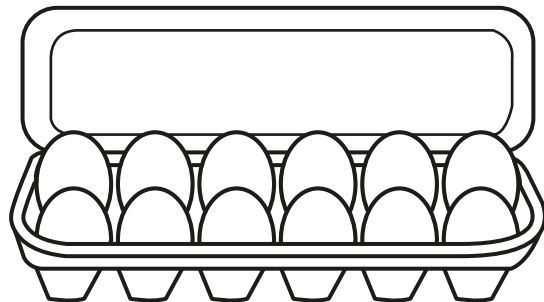
Greta has six pretzels in her bowl. She eats one of them. How many pretzels are left in Greta's bowl?

$$\square - \square = \square \text{ pretzels}$$



Aunt Jenny buys a carton of twelve eggs. She uses two eggs to bake a cake. How many eggs are left in the box?

$$\square - \square = \square \text{ eggs}$$

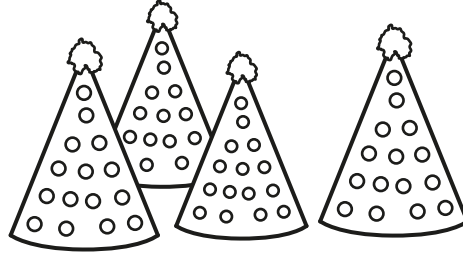




Practice choosing whether to add or subtract to solve problems.

Read each problem, and decide whether you need to add or subtract. Then solve the problem.

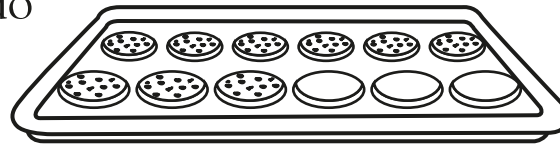
Mary has four hats.
She gives one hat to
her sister. How many
hats does she have left?



hats

Jenny and her mother buy nine chocolate cookies
and three oatmeal cookies at the bakery.

How many cookies do
they buy altogether?



cookies

Six birds perch on the branches of a tree.
Three birds perch on a tree nearby. How
many birds are there in both trees?

birds














Picture Graphs

GOAL

Learn to gather information from a picture graph.

Mrs. Jones asks some children in her class what they like best for breakfast. She creates a picture graph to show what the children tell her.

Favorite Breakfast Foods  = 1 child

cereal	  
yogurt	 
eggs	    

Now use the picture graph to answer these questions.

How many children like cereal best for breakfast?

How many children like yogurt best?

How many children like eggs best?

How many children told Mrs. Jones what their favorite breakfast was? Write the number sentence and solve the problem.


+ + = children







Practice gathering information from a picture graph.

Laura makes a picture graph to show which fruit her friends like best.

Favorite Fruit

 = 1 friend

apples					
bananas					
strawberries					
other fruits					

Now use Laura's graph to answer these questions.

Circle your answers.

How many of Laura's friends like apples best?

1 2 3 4 5

How many friends like bananas best?

1 2 3 4 5

How many friends like strawberries best?

1 2 3 4 5

How many children said they like other fruits best?

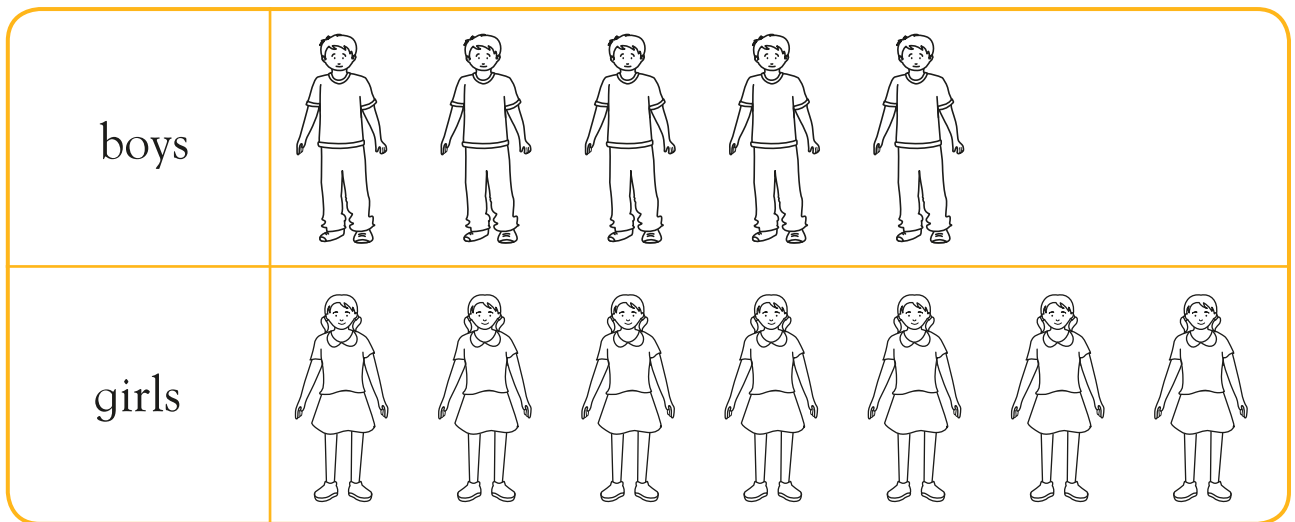
1 2 3 4 5



Practice reading a picture graph to answer math questions.

Mr. Smith makes a graph to show the number of boys and girls in his class.

Students in Mr. Smith's Class



Now look at the graph to answer these questions.

Circle the correct answers.

How many boys are in the class?

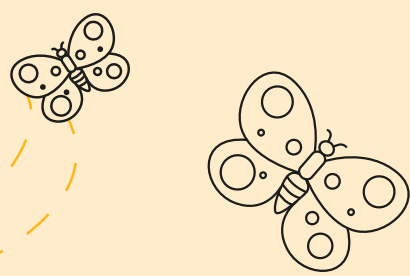
2 3 5 6 7

How many girls are in the class?

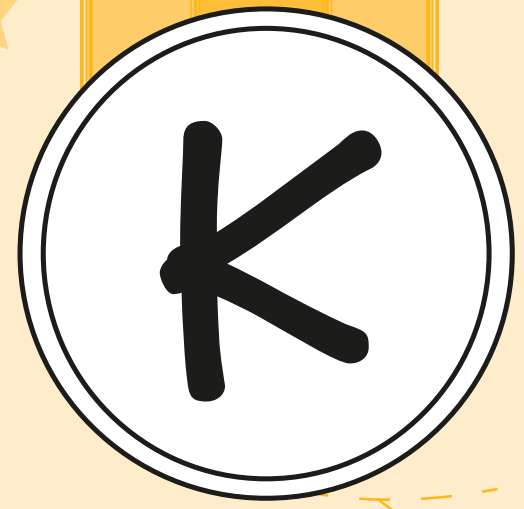
2 3 5 6 7

How many children are in the class altogether?

6 8 10 12 14



Certificate



Congratulations to
.....
for successfully
finishing this book.

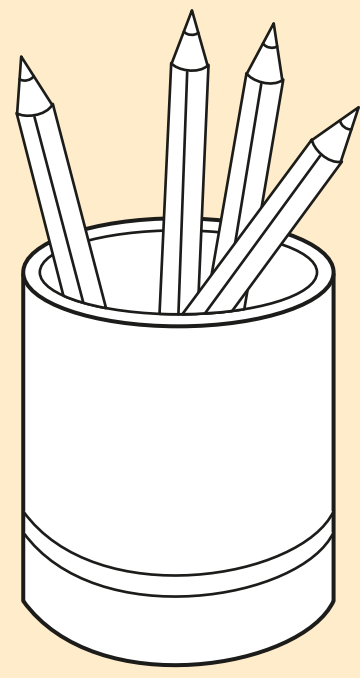
GOOD JOB!

You're a star.



Date

.....



Answer Section with Parents' Notes

This book is intended to teach math problem solving to kindergarten children. The content is designed to feature problems similar to those they may encounter in everyday life.

Contents

By working through this book, your child will practice:

- recognizing, counting, and writing numbers;
- recognizing, identifying, and drawing shapes;
- identifying and completing patterns;
- ordering events to tell a story;
- looking at pictures to gather information and solve problems;
- using positional words and phrases, such as “above,” “below,” and “in front of”;
- comparing quantities, and the size, length, height, and weight of objects;
- choosing the best method for solving a problem;
- adding and subtracting to solve problems;
- using picture graphs to find information to solve problems.

How to Help Your Child

Guide your child by reading the problems and instructions slowly. Make sure he or she understands the questions, the concepts involved, and the different math terms being used.

As you work with your child, you will get an idea of what he or she finds easy, as well as what is more challenging. Use a hands-on approach to help your child understand any concepts he or she finds difficult to grasp. For example, use blocks or other objects found around the home to practice counting. It may also be useful to have a small chalkboard to jot down numbers and to draw on.

Remember to build your child's confidence by praising success. Encourage your child to persist when faced with small challenges. Always remember that finding solutions to math problems should be exciting.

Good luck, and remember to have fun!

4

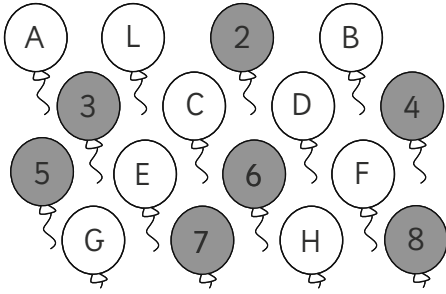


Numbers and Letters

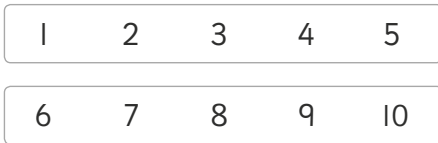
GOAL

Learn to distinguish numbers from letters.

Look at the balloons. Color the balloons that have numbers on them.



Trace along the dotted lines to write these numbers.



4

Help your child recognize the difference between numbers and letters. Young children can become confused as they begin to learn these two sets of symbols.

5

Count to 8



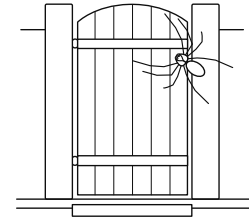
GOAL

Learn to identify and count up to 8 objects.

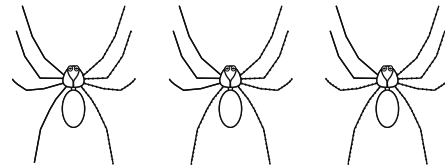
Read the poem below. Then count the legs on the spider in the picture. Circle the correct number of legs to complete the poem.

Do you see that spider
sitting on the gate?
If you can count its legs,
you will see that it has...

4 6 8



The spiders shown below are missing some legs. Trace over the dots so that each spider has eight legs. Then count out loud how many legs each spider has.



5

On this page, your child learns to count using a science fun fact (spiders have eight legs). Give your child some extra practice by collecting eight different objects from around the house and asking him or her to count them.

6

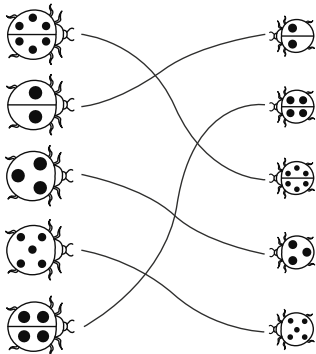


Count to 10

GOAL

Learn to identify and count up to 10 objects.

Draw lines to match each mother ladybug to her baby. **Hint:** Mother and baby ladybugs have the same number of spots.



Count the total number of ladybugs on this page. Circle the correct number below.

6 8 10

6

Your child will learn to count to ten by doing this simple spot-counting exercise. Reinforce the concept of counting by making your child count objects in everyday life.

7

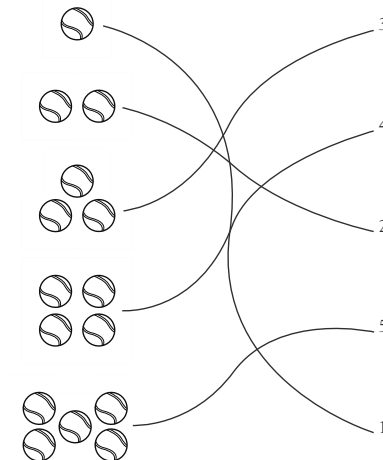
More Counting



GOAL

Learn to match numbers with groups of objects.

Draw lines to match each group of tennis balls on the left with the correct number of objects on the right.



7

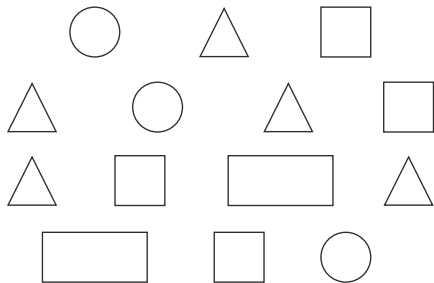
Create counting games to build your child's understanding of numbers and quantity. Ask your child questions such as, "How many objects are there on the table?" You can also use dominoes or dice to reinforce counting.

12

★ Count the Shapes

GOAL

Learn to identify different shapes and count them.



Count the circles. How many are there?

Count the squares. How many are there?

Count the triangles. How many are there?

Count the rectangles. How many are there?

12

Let your child practice sorting and counting blocks or other objects. Point out that although objects may be different sizes, they can still be the same shape.

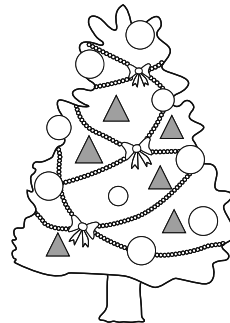
13

Find the Triangles ★

GOAL

Learn to identify triangles.

Look at the decorations on this tree. Color the triangles.
Remember: A triangle is a shape with three straight sides.



Count the triangles in the row of shapes below. How many are there? Circle the correct number.



6 7 8

13

You may need to help your child distinguish one type of shape from another. Ask your child to explain how he or she knows whether a shape is a triangle or not.

14

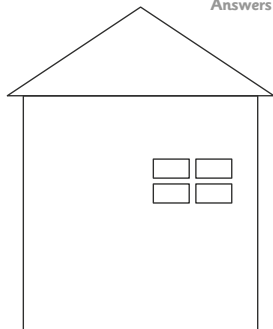
★ Fun with Shapes

GOAL

Learn to relate basic shapes to common objects.

Look at this drawing of a house. The door is missing! Finish the drawing by adding the front door.

Answers may vary



What shape is the front door? Answers may vary

How many shapes make up the finished house? Circle the correct number below.

5 7 8

14

Although most children will draw a rectangle for the front door, some may draw another shape, such as a square. Make sure your child understands that two objects can be the same shape even if they have different orientations.

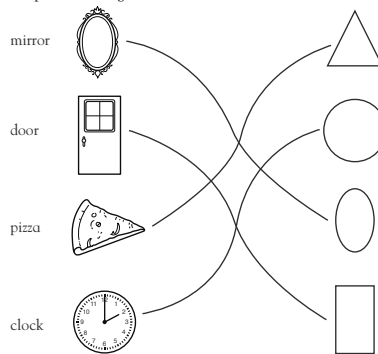
15

What Shape? ★

GOAL

Learn to identify the shapes of common objects.

Draw a line from each picture on the left to its shape on the right.



Read the rhyme and solve the puzzle. Draw the shape in the box.

I have four sides.
They're all the same.
I have four corners.
Now guess my name!



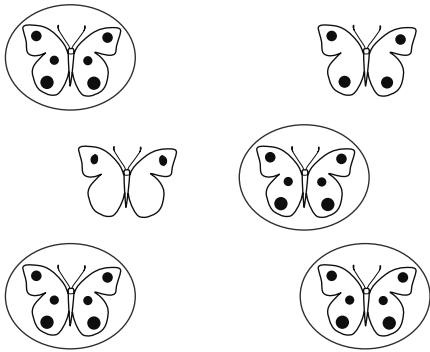
15

Walk around your neighborhood with your child and do a "shape search." Look for objects such as windows, doors, traffic lights, and street signs that are squares, rectangles, triangles, and circles.

★ Patterns

GOAL Learn to recognize patterns.

Look at these butterflies carefully. Circle the four butterflies with the same pattern on their wings.



Count all the butterflies shown above. How many are there? Circle the correct answer.

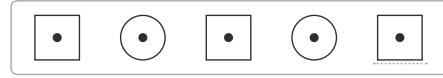
- 4 5 (6)

Learning to recognize and repeat patterns will help your child understand many math concepts. It will also help him or her make predictions and recognize relationships more easily when solving problems.

Complete the Pattern ★

GOAL Learn to complete a pattern.

Draw the shape to complete the pattern in each row.

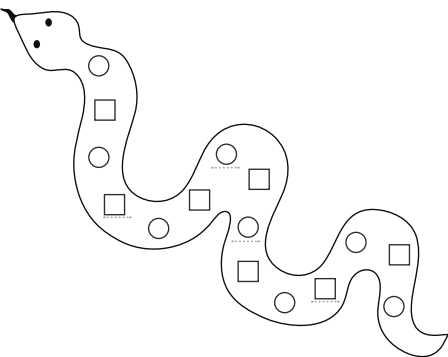


Patterns engage children in observing shapes and help them learn numbers. Your child will begin to recognize the repeated patterns of objects and numbers by creating and completing patterns.

★ Complete the Pattern

GOAL Practice completing a pattern of shapes.

Jake the snake has a pattern of shapes on his scaly skin. Complete the pattern by drawing the missing shapes on Jake. Then answer the questions below.



How many circles are there in the pattern of shapes on Jake? (8)

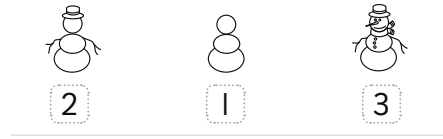
How many squares are there in the pattern of shapes on Jake? (7)

Most children notice patterns in the world around them. To illustrate pattern stories, read books to your child involving patterns or repeated actions, such as *The Mitten* by Jan Brett. Ask your child to retell the story after hearing it.

Ordering Events ★

GOAL Learn to put events in the correct order.

Each line of pictures below shows a sequence of events. But the pictures are in the wrong order! Can you put them in the correct order? Write "1" under the picture that shows what happens first, "2" under the picture that shows what happens next, and "3" under the picture that shows what happens last.

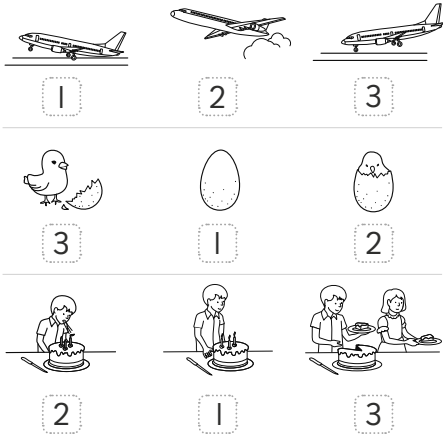


Help your child recognize that there is an order to certain tasks. After completing the page, have your child draw pictures of everyday activities. Then ask your child to number them to show the order he or she usually does them in.

★ Tell a Story

GOAL Learn to order pictures to tell a story.

Each line of pictures below tells a story. Write "1" under the picture that shows what happens first, "2" under the picture that shows what happens next, and "3" under the picture that shows what happens last.

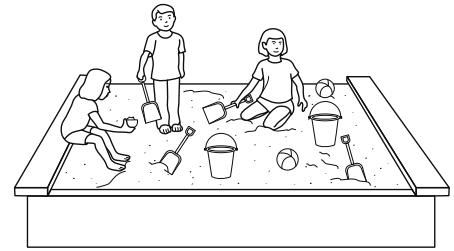


Discuss the exercises on this page with your child, using the words "first" and "next." Then explain the correct order of the steps in each sequence.

Find the Facts ★

GOAL Learn to gather information from pictures.

Look at the picture. Then answer the questions.



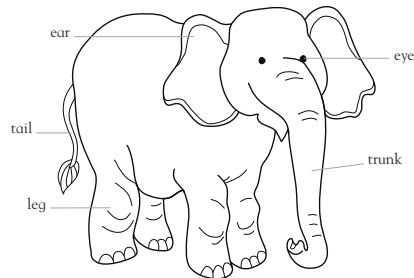
- How many children are in the sandbox? children
- How many shovels are in the sandbox? shovels
- How many balls are in the sandbox? balls
- How many pails are in the sandbox? pails

Guide your child as he or she studies the illustration and counts the children and objects in the sandbox. If necessary, circle the children and objects using different color markers or crayons to help them stand out.

★ Look and Learn

GOAL Practice gathering information from pictures.

Meet Ellie the elephant. Then circle the correct number to complete each sentence.



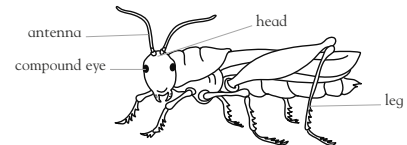
- Ellie has 3 4 ears.
- She has 2 3 tail(s).
- She has 4 6 legs.
- She has 3 5 trunk(s).

Observation skills are important in gathering information needed to solve problems. Your child can recognize whether objects are long or short or have several parts by observing closely. Extend this activity to objects around the house.

Look and Learn ★

GOAL Practice gathering information from pictures.

Look at the picture of a grasshopper. Then circle the correct answer to each question.



- How many legs does a grasshopper have? 4 2
- How many compound eyes does a grasshopper have? 4 8
- How many antennae does a grasshopper have? 6 4

How many insects are in the box? Circle the answer.



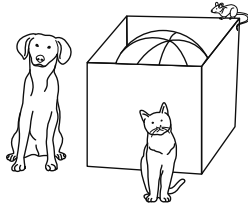
- 6

Children have a natural ability to recognize numbers and the many ways in which they are used. Activities like this, which involve exploring nature and the world around them, help children see how numbers relate to real objects and can be useful.

★ Position Words

GOAL Learn words and phrases that tell you where something is.

Look at the picture. Then circle the correct answer to each question below.



Where is the cat?
 in front of the box on top of the box

Where is the ball?
 next to the box inside the box

Where is the mouse?
 inside the box on top of the box

Where is the dog?
 next to the box inside the box

More Position Words ★

GOAL Learn more position words and phrases.

Look at the picture. Then circle the correct word or phrase to complete each sentence.



The squirrel is the tree.
 on under

The dog is the house.
 outside inside

The sun is the house.
 above below

The tree is the house.
 to the right of in front of

The mailbox is the house.
 to the right of in front of

Learning positional words improves spatial understanding and builds communication skills. Knowing words and phrases such as “in front of,” “on top of,” and “next to” will help your child understand basic directions.

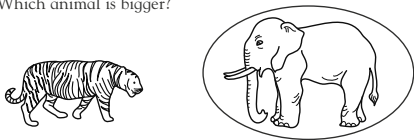
Play an “I spy” game with your child to reinforce the concept of position words. Say, “I spy something on the table,” or “I spy something above the tree,” or “I spy something behind the desk,” for example.

★ Which is Bigger?

GOAL Learn about differences in size.

Circle the correct picture to solve each problem.

Jeff said an elephant is a big animal. Luke said a tiger is a big animal, too. Which animal is bigger?



Holly picked a watermelon at the farm. Patty picked an apple. Which fruit is larger?



Lily and Luke went on a field trip to the zoo. They traveled there in a big bus. Which vehicle did Lily and Luke ride in?



Which is Longer? ★

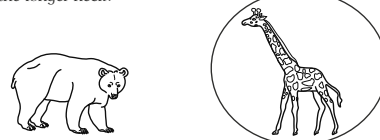
GOAL Learn about differences in length.

Circle the correct picture to solve each problem.

Jen saw two snakes. One was a lot longer than the other. Which snake is longer?



Kai saw a bear and a giraffe at the zoo. Which animal has the longer neck?



Jane and Peter visited a farm. They saw pigs and horses. Which animal has the longer tail?



Having your child observe and compare the size of objects helps build his or her abstract thinking skills. While your child is looking at a picture of an object, he or she is using background knowledge to identify differences in size.

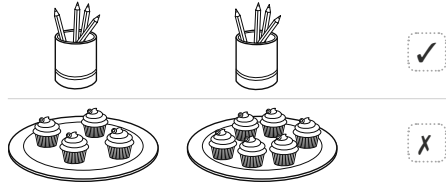
Your child may not yet be able to use measuring tools accurately, but he or she should be able to recognize whether objects are longer or shorter than other objects. Extend this activity to comparing the length of things around the home or things you see as you walk around the neighborhood.

★ Equal or Not?

GOAL

Learn to compare quantities.

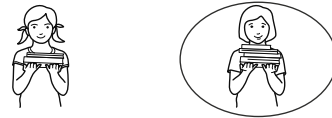
Look at each pair of pictures. Put a check (✓) in the box if the quantities are equal. Put an X (X) if they are not.



Which child has more balloons? Circle the correct picture.



Which girl has more books? Circle the correct picture.



More Comparisons ★

GOAL

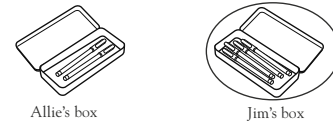
Practice comparing quantities, height, and weight.

Solve these problems by circling the correct picture.

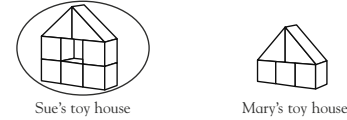
Jade bought three apples and put them in her shopping bag. Molly bought six apples and put them in her bag. Which bag is heavier?



Allie has two pens in her box. Jim has four pens in his box. Whose box contains more pens?



Sue and Mary built houses with toy blocks. Which house is taller?



Give your child enough practice at comparing quantities. This will help sharpen his or her problem-solving skills, as he or she can estimate the answer before doing the calculation. Using pictures makes comparing quantities easier.

It may be helpful to use actual objects, such as blocks, bottle caps, or fruit, when teaching your child to solve problems. For example, the first problem on this page will be easier to solve if you use real apples.

★ Addition

GOAL

Learn to solve simple problems involving addition.

Solve these problems.

Jake has three apples.



Amy has five apples.



How many apples do Jake and Amy have?

8

Brian has four pears.



Sally has three pears.



How many pears do Brian and Sally have?

7

Martin has four bananas.



Alison has one banana.



How many bananas do Martin and Alison have?

5

How many pieces of fruit do Jake, Amy, Brian, Sally, Martin, and Alison have in all? Count them, then circle the correct number.

15

20

25

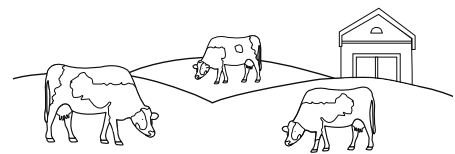
More Addition ★

GOAL

Practice solving simple problems involving addition.

Look at the picture below. How many cows are grazing in the field? Circle the correct number.

1 2 ③ 4



Lily, Allie, and Emma sit at the same table in preschool. Dan joins them. How many children are at the table now? Circle the correct number.

1 2 3 ④

Tim has a dog and a cat. How many pets does Tim have? Circle the correct number.

1 ② 3 4



At this stage, children can often count items up to 20, but you may have to help your child count each piece of fruit on the page to find the answer to the last question. Use other objects at home to practice addition by counting.

Your child will learn to solve problems by listening to the facts and looking at pictures. Guide your child to look for the information needed in each picture and explain ways to solve the problem.

GOAL Learn some simple ways to solve addition problems.

Counting on your fingers may help you solve some problems. Use your fingers to solve this problem.

Jane buys four apples. Her mother gives her three more. How many apples does Jane have now?  7 apples

You can also solve problems by drawing pictures. Draw pictures to help you solve this problem.

Sally has six balls. Jim gives her two more.



How many balls does Sally have now? 8 balls

You may find that the best way to solve a problem is to write a number sentence. Circle the number sentence below that tells you the total number of balls Sally has.

$5 + 4 = 9$

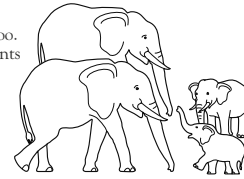
$6 + 2 = 8$

GOAL Learn to solve problems involving numbers up to 10.

Solve these problems.

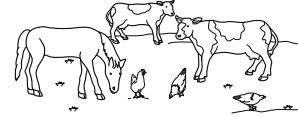
Beth and Mario visit the zoo. They see two adult elephants and two baby elephants. How many elephants do they see altogether?

4 elephants



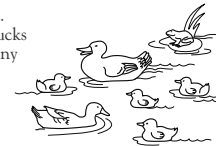
Mrs. Brown has a small farm. She has one horse, two cows, and three hens on her farm. How many animals live on Mrs. Brown's farm?

6 animals



Jenny and Paolo visit a pond. They see one frog and two ducks with four ducklings. How many animals do Jenny and Paolo see altogether?

7 animals



Let your child find different ways of solving problems. If your child is having trouble with these questions, try using real objects to illustrate the problem. Many children learn best by manipulating objects while a story is being told.

When young children start to solve math problems, they may need to see concrete images so they can count the number of objects. Once your child is more accustomed to numbers and counting, images are not usually required.

GOAL Learn to solve problems involving numbers up to 20.

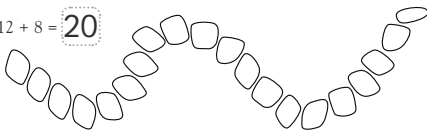
Read these problems and complete the number sentence to solve them.

Judy has fourteen books. John gives her four more. How many books does Judy have now?

$14 + 4 = 18$

Jay is walking along a stone path. He walks over twelve stones and stops. Then he walks over eight more stones. How many stones does Jay walk over in all?

$12 + 8 = 20$



Gary has eleven markers. Kim gives him six more. How many markers does Gary have now?

$11 + 6 = 17$



GOAL Learn to solve addition problems using a chart.

Here is a chart showing the numbers 1 to 50.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Point to the number 31 on the chart. Then add 4 to 31 by counting forward four numbers. What number is your finger on now? Write it in the box. 35

Now solve these problems, counting numbers forward along the chart to help you.

Alfie finds two seashells on the beach. Then he finds ten more shells. How many shells does Alfie find altogether? 12

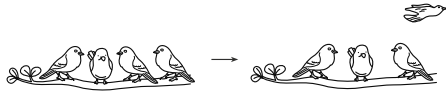
Ben has ten coins in his collection. His dad gives him twelve more. How many coins does Ben now have? 22

Your child should be able to count and add numbers from 1 to 20. Let him or her use a dry-erase board to write numbers on while adding. Encourage your child to use the way of working that he or she is most comfortable with.

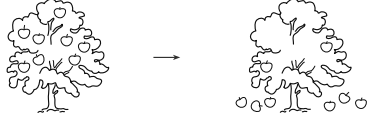
Use the number chart to model how addition works. Seeing the numbers on the chart will show your child how to count up from (add to) any number instead of having to start at 1.

GOAL Learn to solve subtraction problems using pictures.

Look at each picture story. Then circle the correct answer.



How many birds are left on the branch? 2 ③ 4



How many apples are left on the tree? ② 3 4



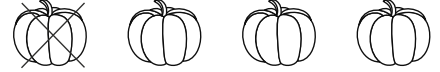
Count the mice. How many are there? 10

Two mice run away. Cross out (X) two of the mice. How many are left? 8

GOAL Practice some simple subtraction.

Use the pictures to help solve these problems. Cross out (X) the objects to subtract them. Then count the remaining objects and write the answer.

Isabella picks four pumpkins. She gives one to her mother. How many pumpkins does she have left? 3 pumpkins



Hollie has six pencils. She gives two to Ellen. How many pencils does Hollie have left? 4 pencils



Karl buys six stickers. He loses one of them. How many stickers does Karl have left? 5 stickers



Explain to your child that subtraction means "taking away." Show five crayons and take away two. Then ask your child how many crayons are left. Continue to show subtraction with other objects, such as coins and cards.

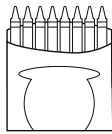
When teaching subtraction, it can be helpful to use real objects your child can manipulate to illustrate the problem. This will help your child see the action of subtraction, as well as that a certain quantity is being taken away and the answer is what is left.

GOAL Learn to solve subtraction problems by writing number sentences.

Read each problem. Then write a number sentence to find the answer.

Edgar buys a box of eight crayons. He loses two of them. How many crayons does Edgar have left?

8 - 2 = 6 crayons



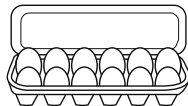
Greta has six pretzels in her bowl. She eats one of them. How many pretzels are left in Greta's bowl?

6 - 1 = 5 pretzels



Aunt Jenny buys a carton of twelve eggs. She uses two eggs to bake a cake. How many eggs are left in the box?

12 - 2 = 10 eggs

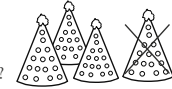


Create some more subtraction problems of your own to give your child extra subtraction practice. Start by asking your child to draw objects and to cross them out to show subtraction. Then gradually move on to writing number sentences.

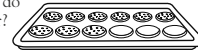
GOAL Practice choosing whether to add or subtract to solve problems.

Read each problem, and decide whether you need to add or subtract. Then solve the problem.

Mary has four hats. She gives one hat to her sister. How many hats does she have left? 3 hats



Jenny and her mother buy nine chocolate cookies and three oatmeal cookies at the bakery. How many cookies do they buy altogether? 12 cookies



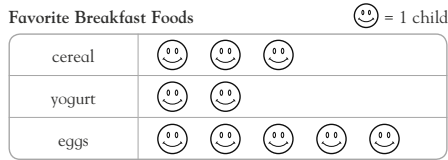
Six birds perch on the branches of a tree. Three birds perch on a tree nearby. How many birds are there in both trees? 9 birds



Help your child identify when to add, or put together, and when to subtract, or take away. After reading each problem, ask your child whether he or she thinks addition or subtraction is the way to find the answer.

GOAL Learn to gather information from a picture graph.

Mrs. Jones asks some children in her class what they like best for breakfast. She creates a picture graph to show what the children tell her.



Now use the picture graph to answer these questions.

How many children like cereal best for breakfast? 3

How many children like yogurt best? 2

How many children like eggs best? 5

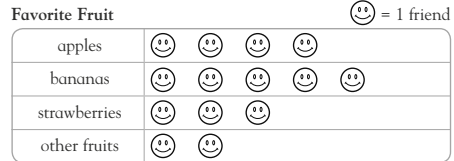
How many children told Mrs. Jones what their favorite breakfast was? Write the number sentence and solve the problem.

$3 + 2 + 5 = 10$ children

Make sure your child studies the picture graph on this page and counts the number of faces next to each food carefully. You may need to help your child calculate the answer to the last question.

GOAL Practice gathering information from a picture graph.

Laura makes a picture graph to show which fruit her friends like best.



Now use Laura's graph to answer these questions. Circle your answers.

How many of Laura's friends like apples best?
1 2 3 4 5

How many friends like bananas best?
1 2 3 4 5

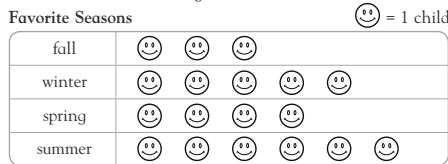
How many friends like strawberries best?
1 2 3 4 5

How many children said they like other fruits best?
1 2 3 4 5

Show your child how to find the data to answer each question on this page. Extend the exercise by making simple graphs to show other information that your child can relate to, such as favorite toys or colors.

GOAL Practice reading a picture graph to answer math questions.

Mrs. Brown asks the children in her class to choose their favorite season of the year. She makes a picture graph to show the information she gathers.



Now use the picture graph to answer these questions.

How many children like fall best? 3 children

How many children like winter best? 5 children

Which season was liked by six children? Circle the answer.

winter summer

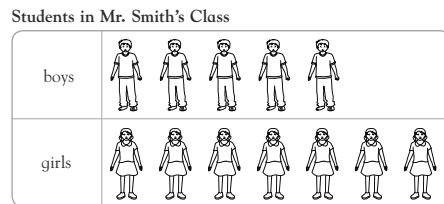
Which season was liked by four children? Circle the answer.

spring fall

Count each row of faces carefully with your child to model how to find or to review the answers. Point out that every face on the chart stands for one child.

GOAL Practice reading a picture graph to answer math questions.

Mr. Smith makes a graph to show the number of boys and girls in his class.



Now look at the graph to answer these questions. Circle the correct answers.

How many boys are in the class?
2 3 5 6 7

How many girls are in the class?
2 3 5 6 7

How many children are in the class altogether?
6 8 10 12 14

Again, help your child read the chart. Point out the number of boys and girls in each row. Emphasize the importance of counting carefully and correctly in order to answer each question.