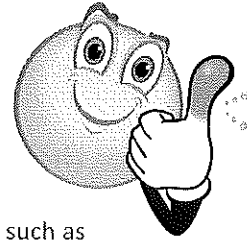


Singapore Shape-Up: Level K

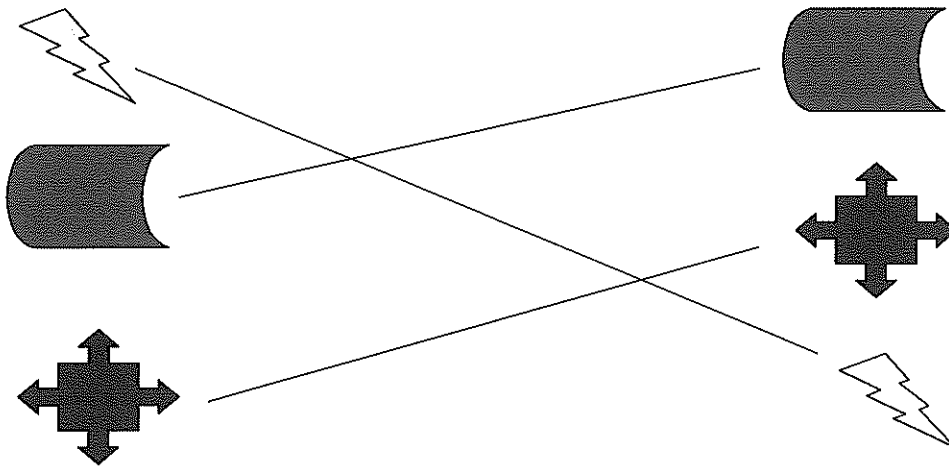
Thinking Guide and Solutions

Week 1 Lesson 1

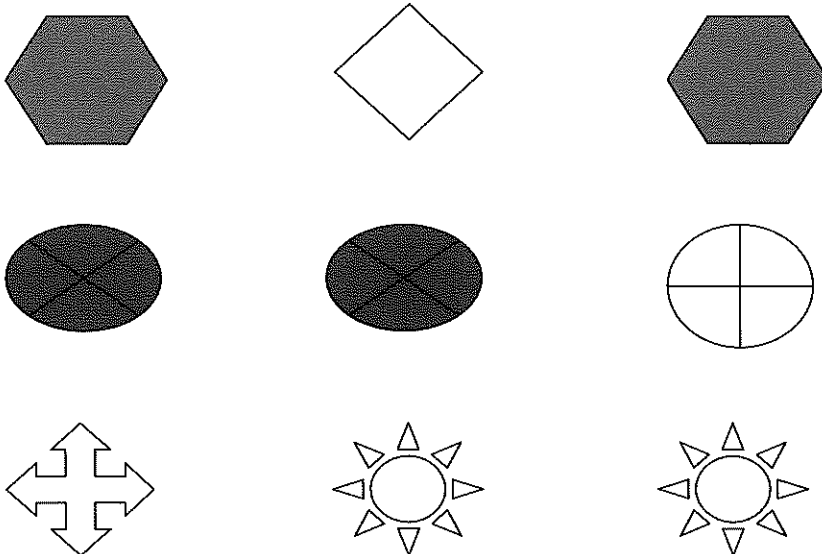


When we think about attributes, we are looking the ways in which objects are the same or different. We can sort objects differently based on some type of attribute, such as shape, size, color, etc. When working with young children, we can show children two objects that are identical and follow up with two different objects. When we ask children to determine whether the objects are the same or different, we are asking them to look closely at the attributes and articulate why they are similar or different.

1. Can you find each shape's match? Draw a line from each shape to its match.

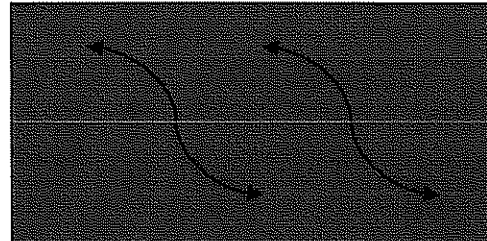
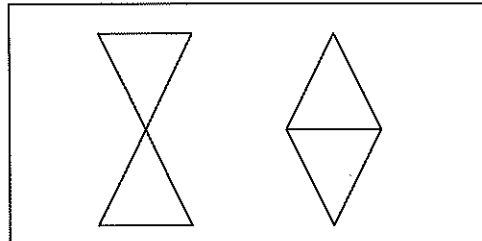
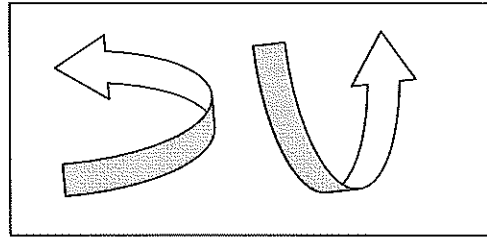
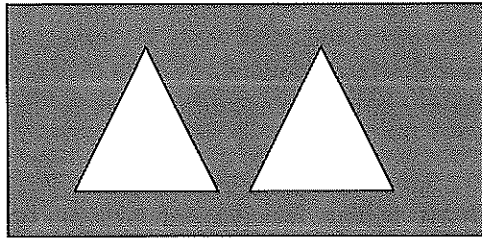


2. Color the ones that are the same in each row.



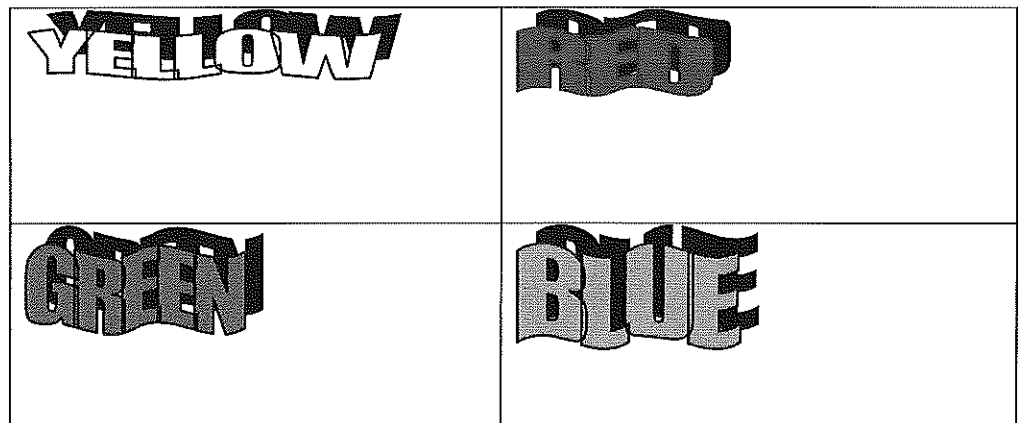
Singapore Shape-Up: Level K Thinking Guide and Solutions

3. Color the pictures if they are the same in each of these boxes.



(Using a child's environment helps to show that mathematics is everywhere around them. It extends math beyond the classroom and brings mathematics concepts into their world.)

4. Go and look around your bedroom. Draw some things inside your bedroom that are the same color. Answers will vary.



Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 1, Lesson 2

Patterns are evident throughout mathematics. From an early age, children can recognize and identify patterns. They notice geometric shapes or when objects are grouped by color, size, or texture. As students develop, they begin to see that numbers also have patterns, music has patterns, and even poetry has patterns. The ability to identify, describe and extend patterns is vital to helping students gain flexibility with manipulating numbers, learning multiplication facts, sequencing information and more. Creating a variety of patterns using common household items will go a long way toward developing your child's ability to identify and describe patterns. Challenge your child to create patterns of their own.

To do this series of questions, you will need some things found around your house. Ask mom or dad for the following items:

1. Macaroni
2. A variety of coins (pennies, nickels, dimes, quarters)
3. Dried beans
4. Knives, forks and spoons
5. Blocks

*Note: If you can't find these, don't worry! You can use anything you might find in order to make patterns.

1.



What is the pattern? (Triangle, triangle, triangle, sideways C, sideways C, triangle, triangle, triangle, sideways C, sideways C)

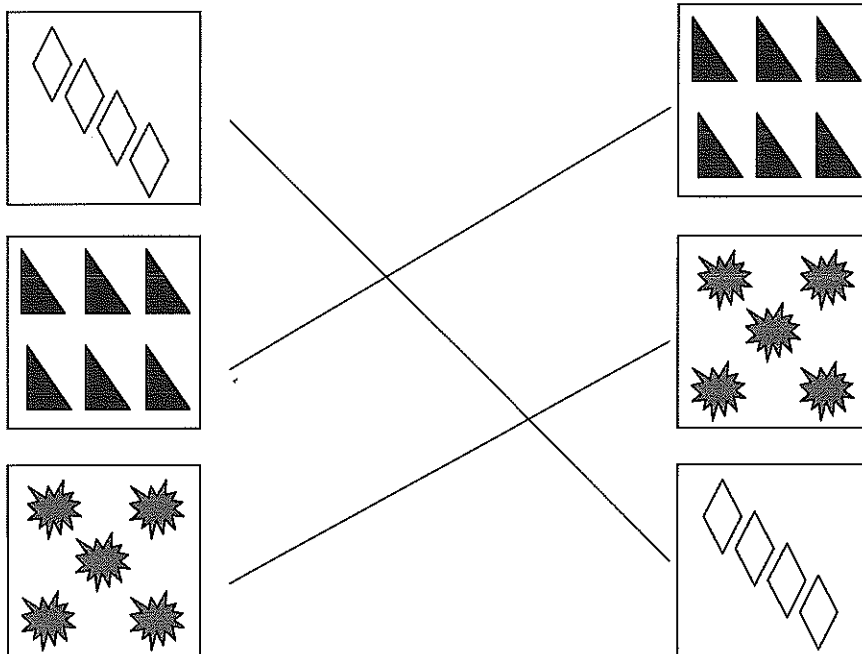
What is the first shape? Put a red circle around it. (Triangle)

What is the fifth shape? Put a blue line below it. (Sideways C)

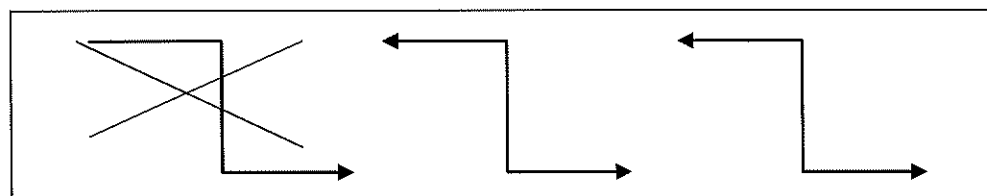
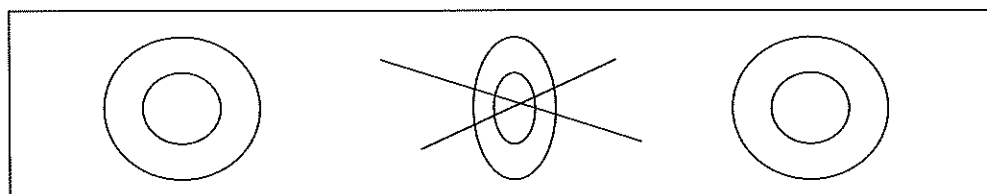
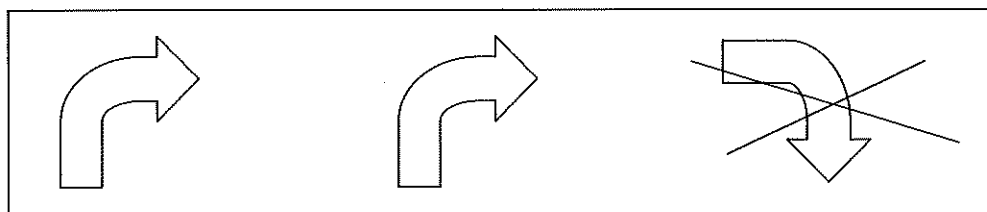
Singapore Shape-Up: Level K

Thinking Guide and Solutions

5. Look at the patterns. Draw lines to the patterns that are the same.



6. Cross out the object that is not the same in each box. (Assess their understanding by asking "Why?")



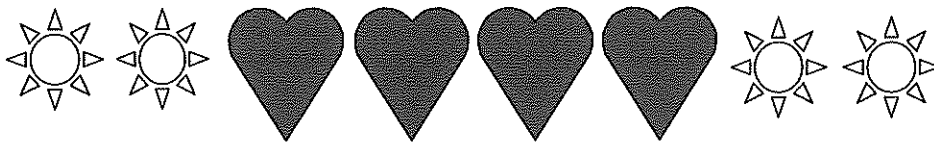
Singapore Shape-Up: Level K

Thinking Guide and Solutions

2. Take your blocks and your macaroni. Create a 2 block, 4 macaroni pattern. Draw it below.



3.



What pattern do you see? (Sun, sun, heart, heart, heart, heart, sun, sun)

Is it a pattern by color, shape or size? (The pattern is by shape.)

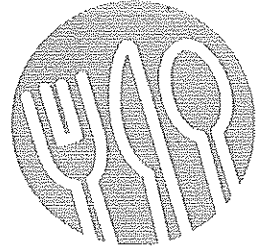
4. Take a group of your coins. Create your own pattern and draw it below. Then describe the pattern you've created. (Answers Will vary by child.)



Singapore Shape-Up: Level K

Thinking Guide and Solutions

5. Now take the knives, forks and spoons. Create a pattern that uses all three utensils and shows a pattern that changes the direction of the utensil. (For example, one spoon might be upside down, the fork faces up and the knife goes across.)
 (Answers will vary by child.)



6. Color the shape that is missing in each pattern.

Singapore Shape-Up: Level K

Thinking Guide and Solutions

7. Go back to your room and open your closet. Look carefully, and see if you can find a piece of clothing that has a pattern on it. Draw the pattern below. (Answers will vary.)



8. Now, create your own patterns. Draw three different patterns below.
You can use any shapes you want! (Answers will vary.)

Singapore Shape-Up: Level K

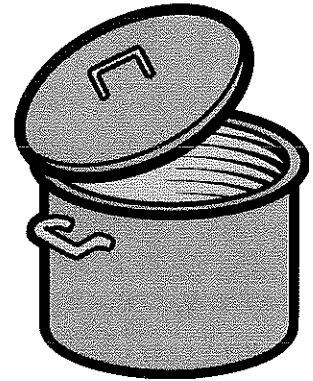
Thinking Guide and Solutions

Week 1 Lesson 3

Size tells us how big something is. In kindergarten, children began developing their concept of size by comparing different objects and asking the questions, "Which is larger?" or "Which is smaller?" Over time, children are then asked to consider a question such as "Which is larger: the number 5 or the number 8?" Size extends into all areas of mathematics. You can help your child by asking questions around larger and smaller and more and less.

To work on this lesson, ask mom or dad to gather these kitchen items:

1. 3 different sized pots
2. 3 different sized bowls
3. 3 different sized spoon
4. M&Ms (macaroni will do, too!)

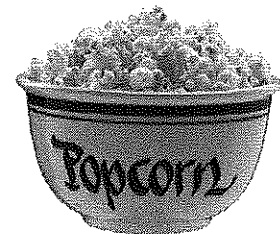


1. Take a look at the pots you've gathered. Put them in order from smallest to largest. Draw them below. (Answers will vary, but smallest will be on the left and the largest will be on the right. Medium in the middle.)

2. Draw a circle around the biggest pot above and a line under the smallest pot. (The circle will be around the pot on the right, and the line under the pot on the left.)

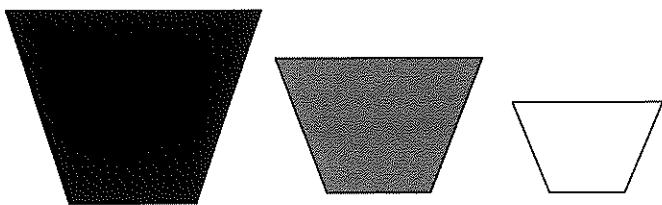
3. Using the three bowls, arrange them from biggest to smallest. Draw them below. (The biggest bowl will be on the left, and the smallest on the right. Medium in the middle.)

4. Draw a square around the smallest bowl. (The square will be around the bowl on the right.)



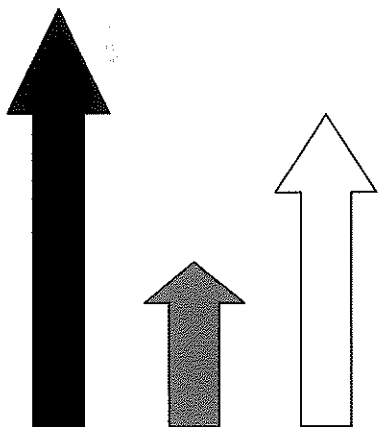
Singapore Shape-Up: Level K Thinking Guide and Solutions

5.



The black container on the left is the biggest container. The gray container is medium-sized, and the white container is the smallest. Which container is the biggest container? (The black container.)

6.



Look at the arrows carefully. The gray arrow is the shortest and the white arrow is taller than the gray arrow. The black arrow is the tallest arrow. Which arrow is shorter: the gray arrow or the white arrow? (The gray arrow.)

Singapore Shape-Up: Level K Thinking Guide and Solutions

7. Set the three different sized spoons on your table. Now take the M&Ms and use them to measure each spoon. Record your information below and then answer the questions.

Spoon #1 is _____ M&Ms long. (Answers will vary.)

Spoon #2 is _____ M&Ms long. (Answers will vary.)

Spoon #3 is _____ M&Ms long. (Answers will vary.)

Which is the shortest spoon? _____ (Answers will vary.)

Which is the longest spoon? _____ (Answers will vary.)

8. Now you find three objects of your choice. Use the M&Ms to measure the objects and record your information below.

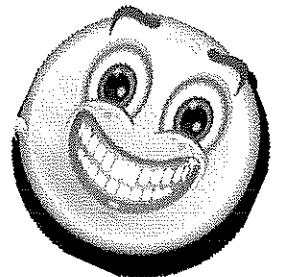
Object #1 is a _____. It is _____ M&Ms long.

Object #2 is a _____. It is _____ M&Ms long.

Object #3 is a _____. It is _____ M&Ms long.

Which is the largest object? How many M&Ms long was it? (Answers will vary.)

**Great work! You're done with Week
1!**

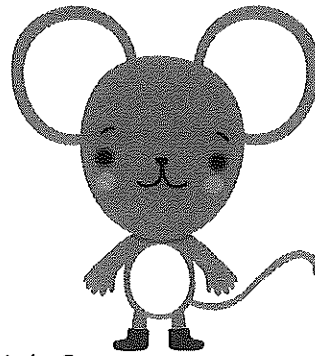


Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 2 Lesson 1

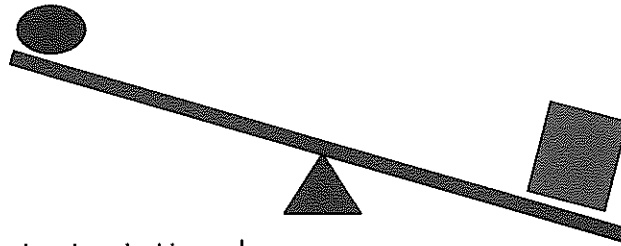
(In kindergarten, students are introduced to the concept of weight. They are asked to describe and compare objects of different weights. Allowing your child to touch and feel in order to compare the weight of actual objects is necessary if we are to develop understanding.)



1. Think about a mouse.

- Do you think a mouse is heavy or light? (Light)
- Can you think of another animal that is light in weight?
(bird, gerbil, hamster)

2.

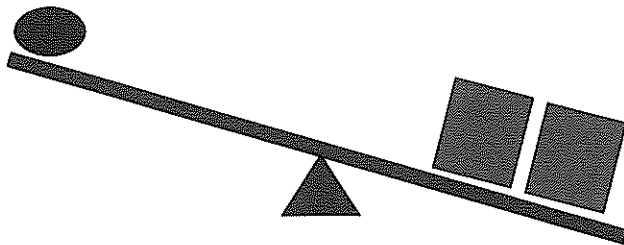


Look at the teeter totter above.

Which is heavier? The circle or the square? (Square)

(The visual representation of a balance helps students understand that we can compare the weight of different objects and that more lighter objects are required to balance the weight of a heavier object.)

3.



Now there is one circle and two squares on the teeter totter. Which is heavier? (Two squares)

What would happen if both squares are taken off the teeter totter?

(The end of the teeter totter with the circle would drop because it's heavier.)

Singapore Shape-Up: Level K Thinking Guide and Solutions

4. Go into your room and find 3 objects.

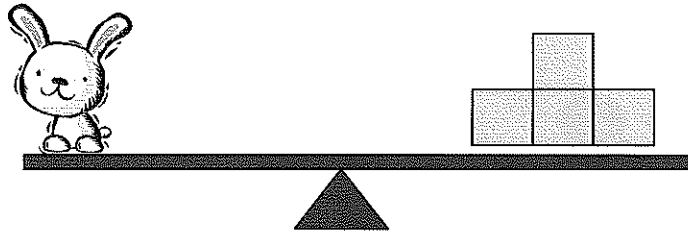
Which object is lighter? _____

Which object is heavier? _____

(Answers will vary.)

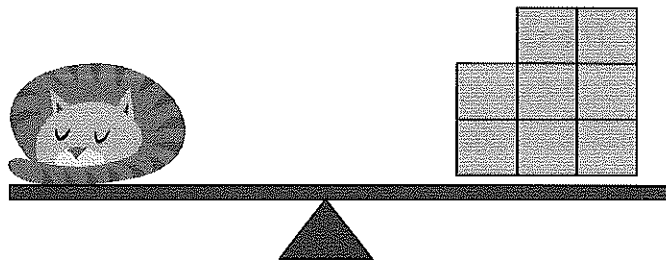
(In the following examples, students learn to use non-standards objects as units of weight.)

- 5.



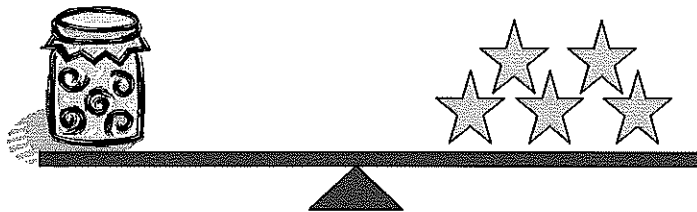
The rabbit is about as heavy as 4 blocks.

- 6.



The cat is about as heavy as 8 blocks.

- 7.



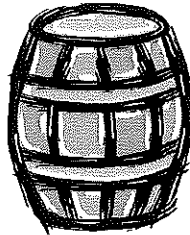
The jar weighs about 5 stars.

Singapore Shape-Up: Level K

Thinking Guide and Solutions

(The following problems help develop a student's understanding of capacity, or how much it would take to fill a container. You can reinforce this at home by taking containers of differing sizes and ask your child to fill them with water. This will help demonstrate which container has the greater capacity.)

8. Circle the container that can hold more. (The circle would go around the barrel.)



9. Circle the container that can hold less. (The circle would go around the smaller can – the one on the left.)



10. Go into the kitchen. Ask mom to get you three different sized cups. Draw them below and draw a box around the container that can hold more. (Have your child make a prediction first, and then confirm their answer.)
11. Now ask mom to go to the get the following things: a carton of milk, a jar of mustard, and a bottle of ketchup. Draw each below. (Answers will vary.)

Which container holds less? _____

Singapore Shape-Up: Level K

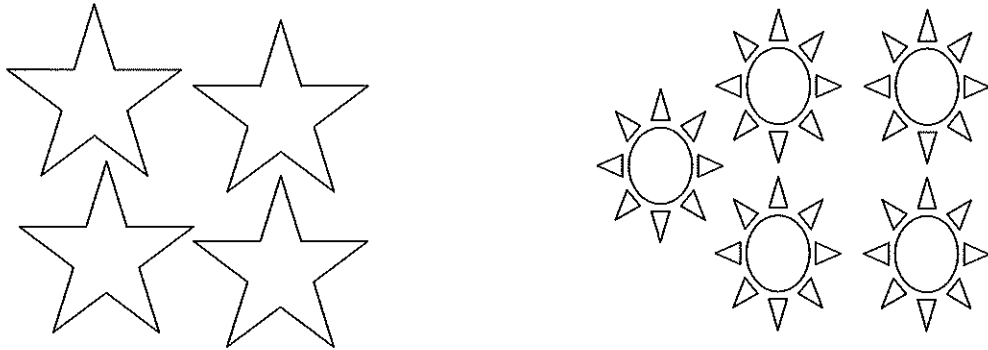
Thinking Guide and Solutions

Week 2 Lesson 2

(When investigating sets of objects, students can compare which set has more or less. Work comparing more and less leads children to conceptual understanding of numbers being more or less than another.)

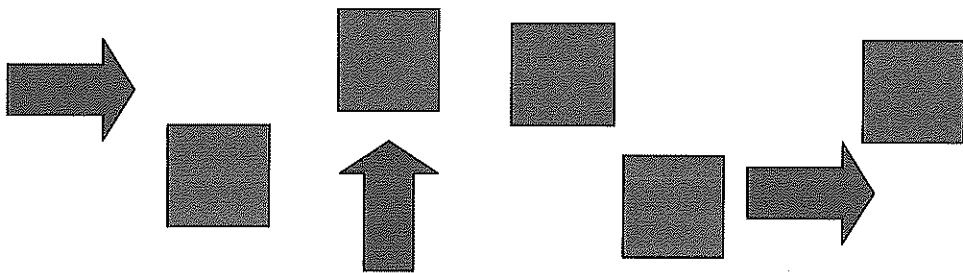
Look at the pictures below.

1. Are there more stars or more suns? (Suns)



There are 5 suns.

2. Are there fewer arrows or are there fewer squares?

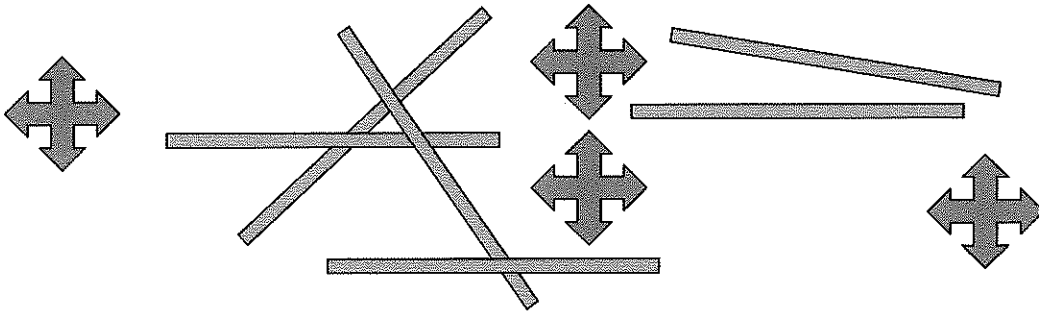


There are fewer arrows .

Singapore Shape-Up: Level K

Thinking Guide and Solutions

3. Are there fewer sticks or fewer snowflakes?



There are fewer snowflakes .

4. Go into your living room and your kitchen. Count the doors and windows in each room. (Answers will vary.)

The living room has _____ doors and windows.

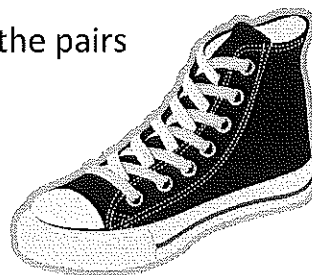
The kitchen has _____ doors and windows.

Which room has more doors? _____

Which room has fewer windows? _____

5. Go into your closet and mom's closet and look at the pairs of shoes. (Answers will vary.)

How many pairs of shoes do you have in your closet? _____



How many pairs of shoes does your mom have in her closet?

Who has more shoes? _____

Challenge: How many more shoes? _____

Singapore Shape-Up: Level K

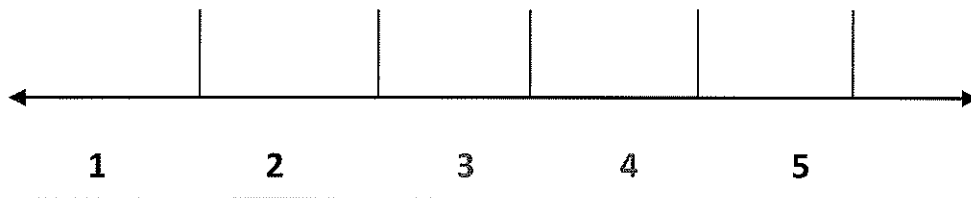
Thinking Guide and Solutions

Week 2 Lesson 3

1. Fill in the missing numbers.

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								😊	😊
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						😊	😊	😊	😊
					😊	😊	😊	😊	😊
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😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
1	2	3	4	5	6	7	8	9	10

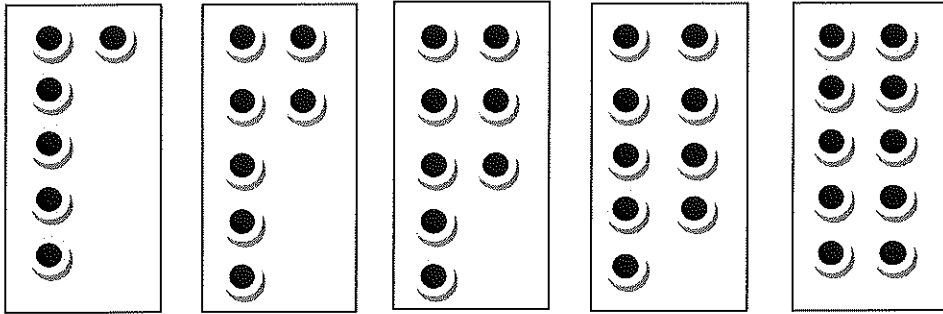
2. Fill in the missing numbers.



Singapore Shape-Up: Level K

Thinking Guide and Solutions

3. Fill in the missing numbers.



 6

 7

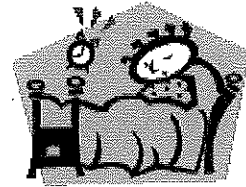
 8

 9

 10

(Students should be able to recognize and identify the four basic shapes: circle, triangle, rectangle and square. Using items from their environment helps them to see that shapes make up all that we see.)

4. Go into your bedroom. Look for two rectangles – one large and one small. Where did you find them? (Answers will vary.)



5. Look around your living room. Find a circle and a square. Where were they? (Answers will vary.)

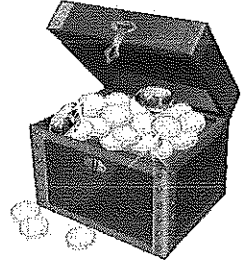
6. Go into the kitchen. As mom to find a bowl or a plate that have shapes on it. What shapes do you see? (Answers will vary.)

Singapore Shape-Up: Level K Thinking Guide and Solutions

7. Look at the chairs at your kitchen table. Identify two different shapes on the chair. What shapes did you find? (Answers will vary.)

8. It's time for a treasure hunt. Search for the following shapes:

(Answers for this series of questions will vary.)



- a. Three triangles – all outside. Where did you find them?

- b. Three circles – all outside. Where did you find them?

- c. Three rectangles – all outside. Where did you find them?

- d. Three squares – all outside. Where did you find them?

Good work! Go have some fun!

Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 3 Lesson 1

(In this lesson, children compare sets of objects using pictures. They should be using the phrases “more than” and “less than” to describe the sets. They should also begin to be able to compare numbers without pictures.)

1. How many dogs are there? 4 How many cats? 3

Compare 4 and 3.

Which is more? 4

How much more? 1



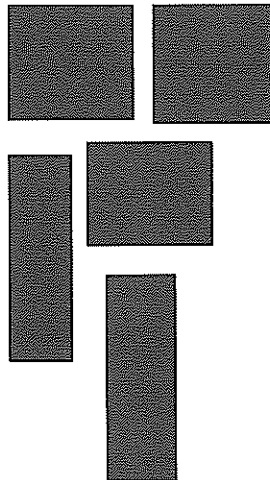
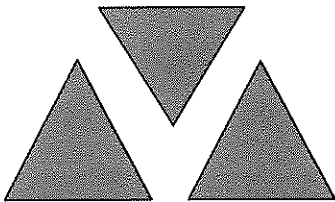
2. How many triangles are there? 3

How many rectangles are there? 5

Compare 3 and 5.

Which is less? 3

How much less? 2



Singapore Shape-Up: Level K Thinking Guide and Solutions

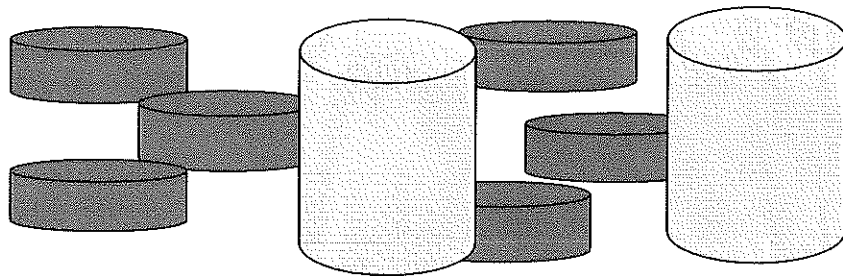
3. How many cylinders are short? 6

How many cylinders are tall? 2

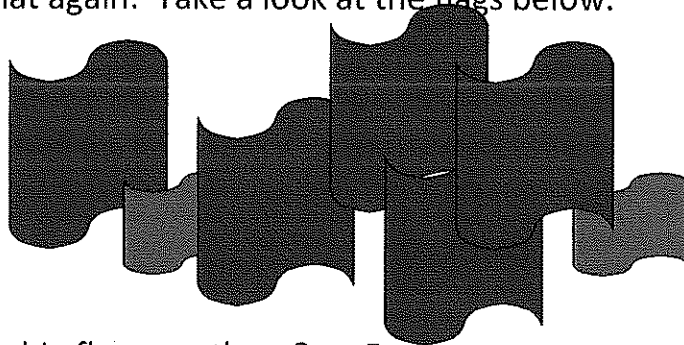
Compare 2 and 6.

Which is more? 6 How much more? 4

Which is less? 2 How much less? 4



4. Let's do that again. Take a look at the flags below.



How many big flags are there? 5

How many small flags are there? 2

Compare 5 and 2.

Which is more? 5 How much more? 3

Which is less? 2 How much less? 3

Singapore Shape-Up: Level K

Thinking Guide and Solutions

5. Now it's time for you to create a problem of your own. Draw a picture with fish and cats. (Answers will vary.)

How many fish did you draw? _____

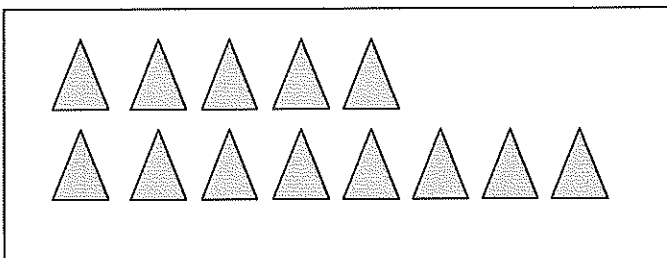
How many cats did you draw? _____

Compare the number of fish and the number of cats.

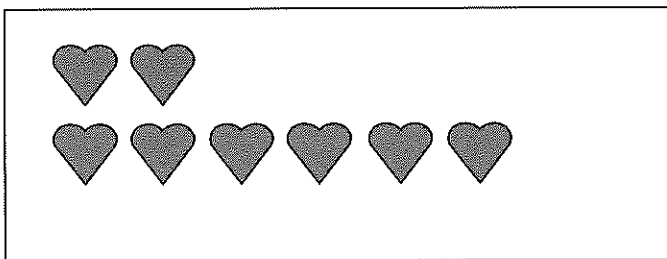
Which is more? _____ How much more? _____

Which is less? _____ How much less? _____

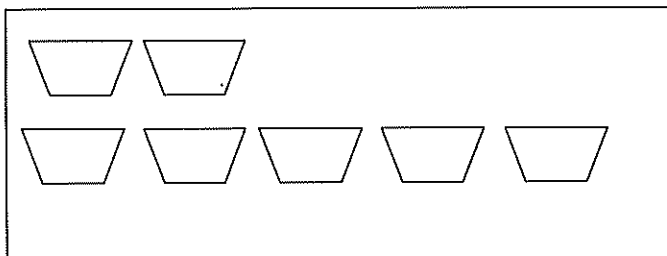
6. Look at the pictures and write the correct numbers in each box.



5 is 3 less than 8.



2 is 4 less than 6.



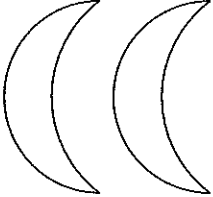
2 is 3 less than 5.

Singapore Shape-Up: Level K

Thinking Guide and Solutions

7.


Draw 3 more.



 5 is 3 more than 2.

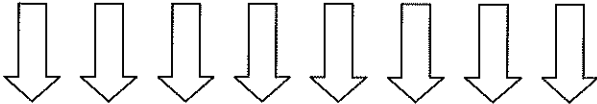
8.

Draw 4 more.



 8 is 4 more than 4.

Cross off 6.



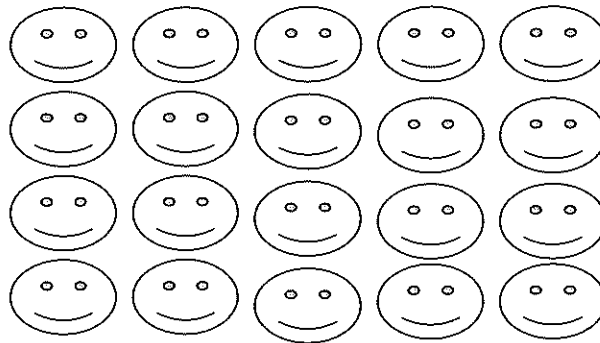
 2 is 6 less than 8.

Singapore Shape-Up: Level K
Thinking Guide and Solutions
Week 3 Lesson 2

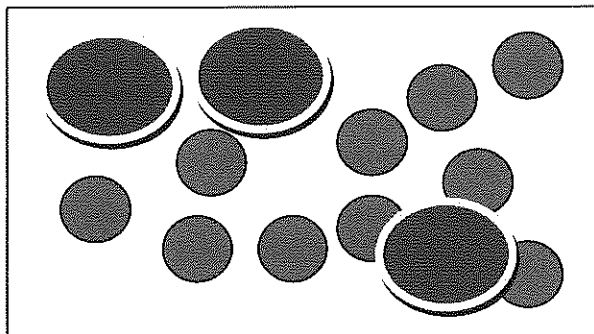
1. Look at the smiley faces below. How many faces are in 1 row? 5

Is there the same number of faces in each row? Yes

Count by 5s to find out how many faces there are altogether. How many faces are there altogether? 20



2. Look at the circles inside the shape below.



How many large circles are there? 3

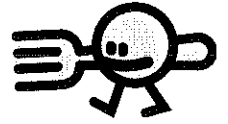
How many small circles are there? 10

How many large and small circles are there altogether?

There are 13 large and small circles altogether.

Singapore Shape-Up: Level K

Thinking Guide and Solutions



3. Go to the kitchen. Ask mom to take out some forks and spoons, but make sure she has more than 10. Have mom put them on the table so that you can figure out the answers to these questions. (Answers will vary.)

How many forks are on the table? _____

How many spoons are on the table? _____

How many forks and spoons are on the table altogether?

There are _____ forks and spoons altogether.

4. Get a bag of M&Ms. Separate out the blue, red and yellow pieces. (Answers will vary.)

How many blue M&Ms are there? _____

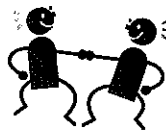
How many red M&Ms are there? _____

How many yellow M&Ms are there? _____

How many blue, red and yellow M&Ms are there altogether?

There are _____ blue, red and yellow M&Ms altogether.

(Helping children practice skip counting serves as the foundation to number fluency and flexibility. In addition, skip counting also sets the stage for the concept of repeated addition and multiplication, which will be introduced to students later in Level 1.)



5. Count to 20 by 2s.

__2__, __4__, __6__, __8__, __10__, __12__, __14__, __16__, __18__, __20__

Singapore Shape-Up: Level K

Thinking Guide and Solutions

6. Count to 20 by 1s.

1, _2_, _3_, _4_, _5_, _6_, _7_, _8_, _9_, _10_, _11_,

12, _13_, _14_, _15_, _16_, _17_, _18_, _19_, _20_

7. Count backwards from 14 to 7 by 1s.

14, _13_, _12_, _11_, _10_, _9_, _8_, _7_



8. Count backwards from 10 to 0 by 2s.

10, _8_, _6_, _4_, _2_, _0_

9. Fill in the missing numbers.

9 10 _11_ _12_ 13 _14_

15 16 _17_ 18 _19_ _20_

13 14 _15_ _16_ 17

11 _12_ 13 _14_ _15_

Singapore Shape-Up: Level K

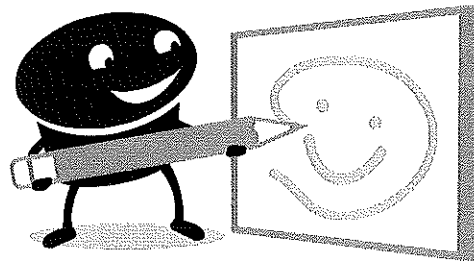
Thinking Guide and Solutions

10. Draw more to make the numbers shown in each box.

17 ☺☺☺☺☺☺☺☺

13 B B B B B B

14 Y Y Y Y Y Y Y Y



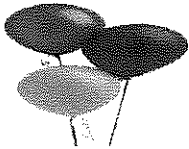
Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 3 Lesson 3

(The next series of problems begin the process of illustrating how numbers combined together form new numbers. These relationships are called number bonds.)

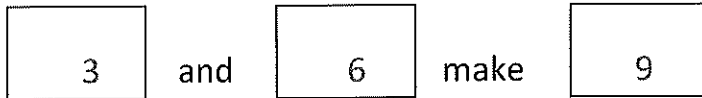
1. There are 2 groups of balloons. How many balloons are there altogether?



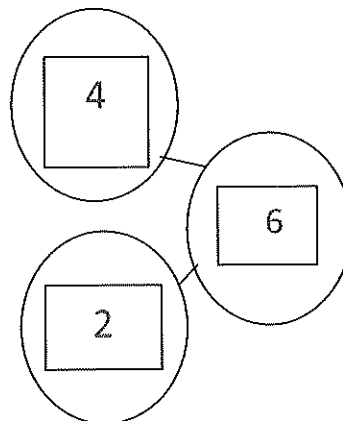
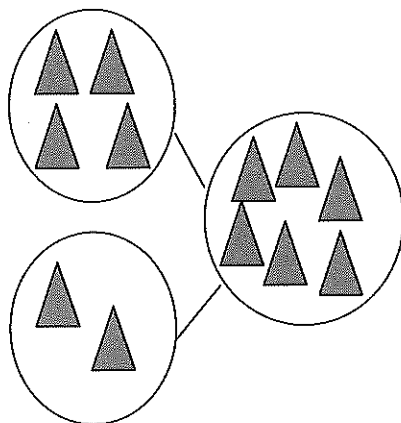
 3



 6



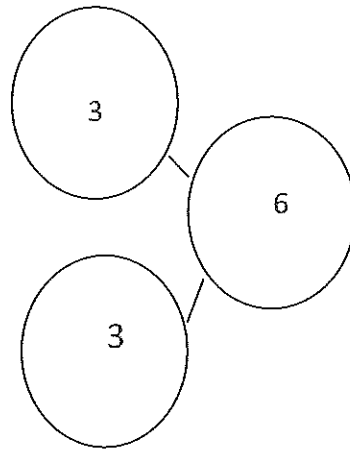
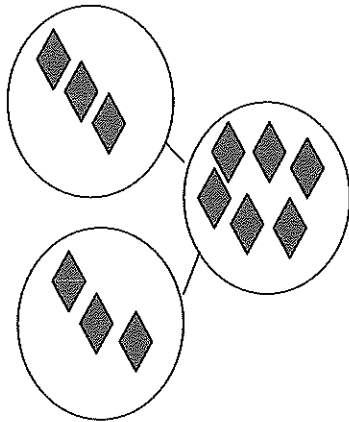
2. Write the matching numbers in the circles.



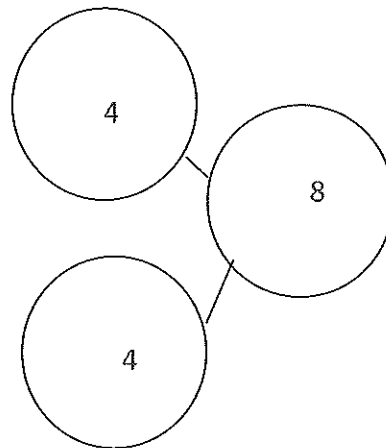
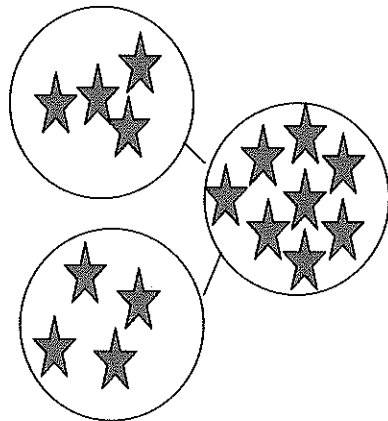
Singapore Shape-Up: Level K

Thinking Guide and Solutions

3. Write the matching numbers in the circles.



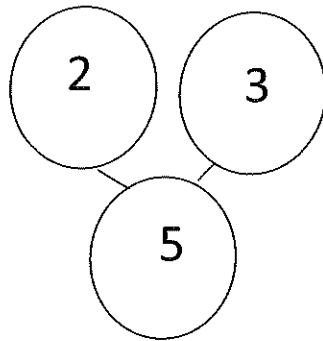
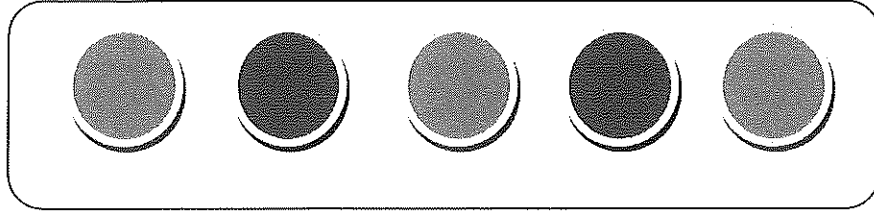
4. Write the matching numbers in the circles.



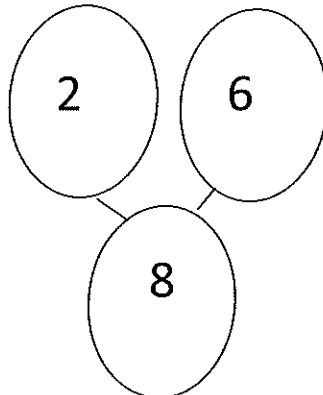
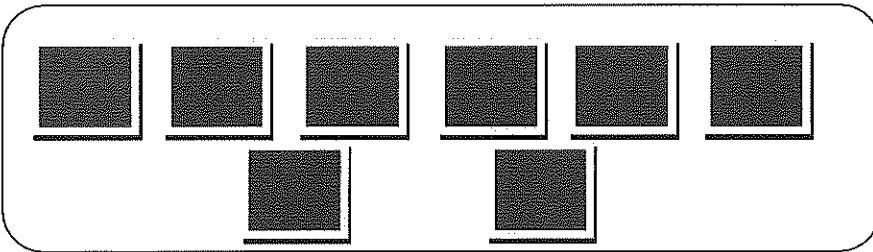
Singapore Shape-Up: Level K

Thinking Guide and Solutions

5. Draw five circles. Color the circles 2 different colors. Now create the number bond.



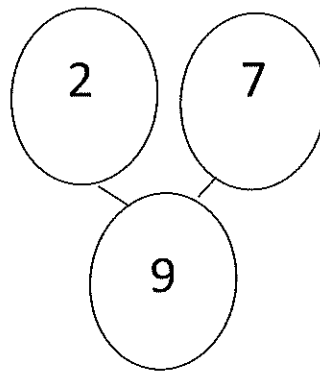
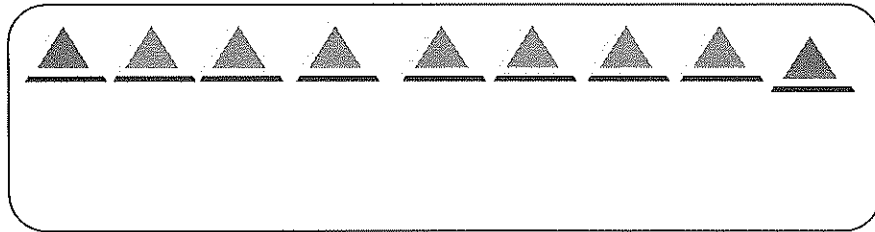
6. Draw 8 squares. Color the squares 2 different colors. Now create the number bond.



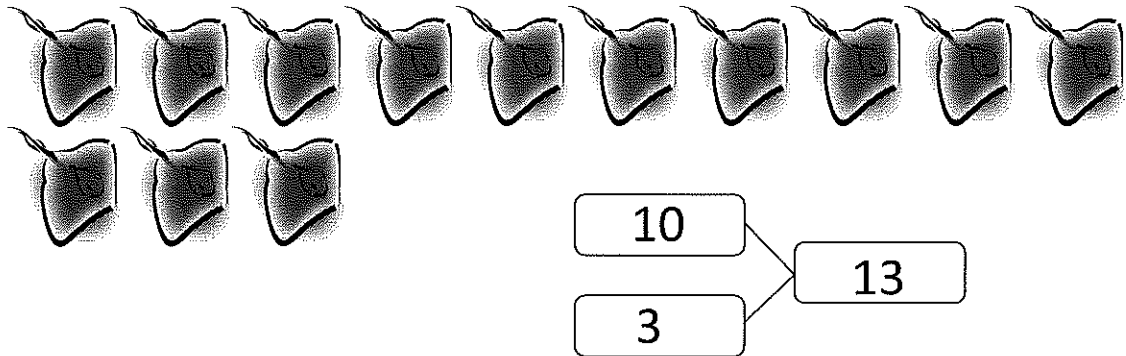
Singapore Shape-Up: Level K

Thinking Guide and Solutions

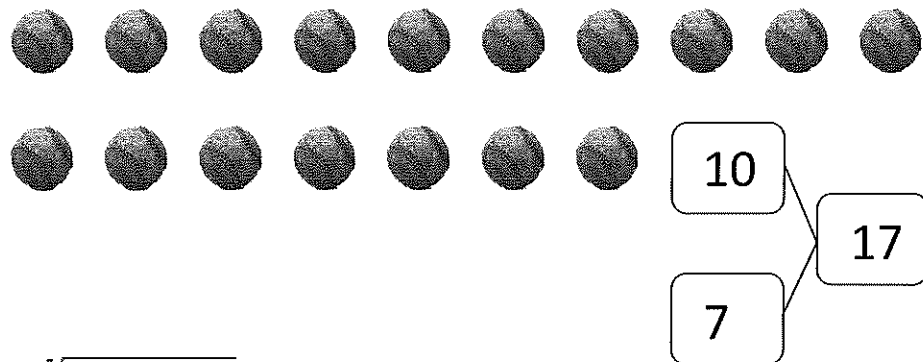
7. Draw 9 triangles. Color the triangles 2 different colors. Now create the number bond.



8. Fill in the number bonds.

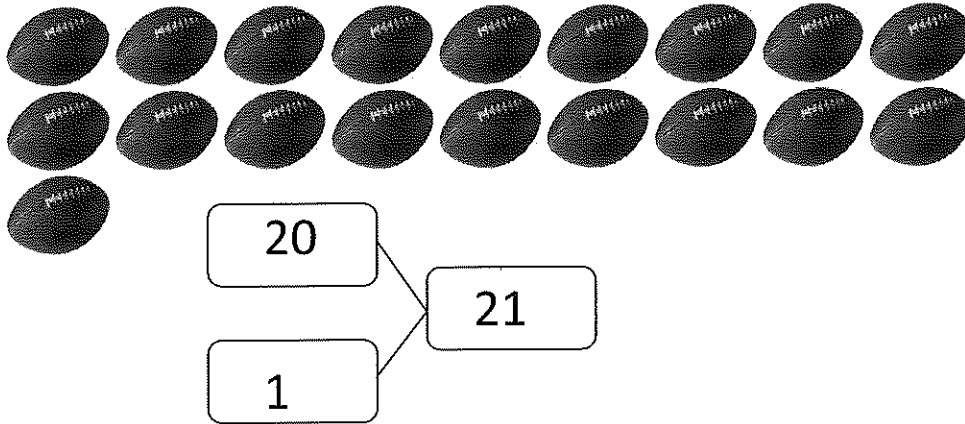


9. Fill in the number bonds.



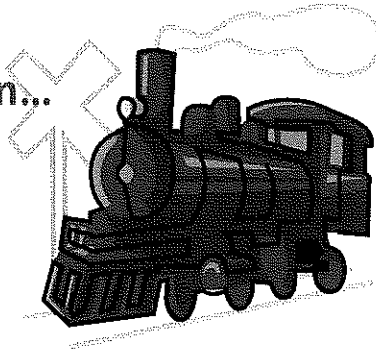
Singapore Shape-Up: Level K Thinking Guide and Solutions

10. Fill in the number bonds.



Half way there! You're a terrific mathematician!

I think I can...I think I can...



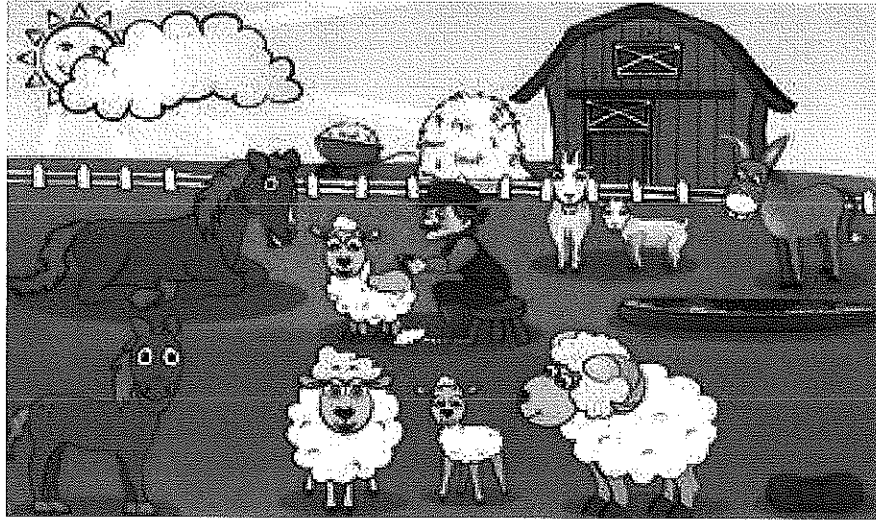
Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 4 Lesson 1

(The following lesson brings math into real life through the creating of number stories. Known by adults as word problems, number stories are the beginning foray into problem solving through the use of pictures. Students should be able to create a number story based on information in a picture and then solve the question they have posed.)

Use the picture of the farm to answer the next three questions.



1. Marigny went to visit a farm. She saw 4 sheep. Each sheep has 4 legs.

How many legs were there altogether? 16

Write the number sentence. $4+4+4+4=16$

There were 16 legs altogether.

2. There are 2 horses and 2 goats.

How many horses and goats were there altogether? 4

Write the number sentence. $2+2=4$

There were 4 horses and goats altogether.

Singapore Shape-Up: Level K Thinking Guide and Solutions

3. There are 9 animals on the farm. Each animal has 2 ears. How many ears are there altogether? 18

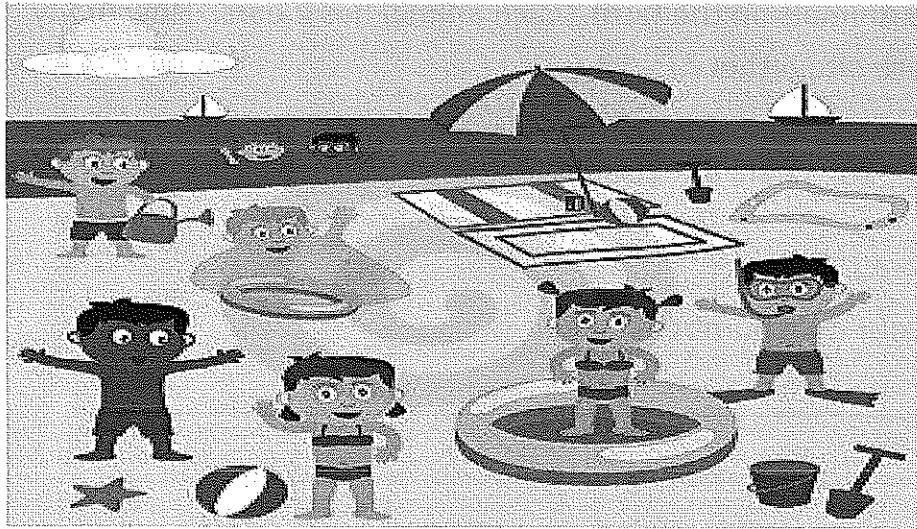
There are 18 ears altogether.

4. You write your own number story!

Draw a picture!

Singapore Shape-Up: Level K Thinking Guide and Solutions

Use this picture to solve the following problems.



5. Some children went to the beach. There were 2 children in the ocean and 6 children on land. How many children were in the ocean and on land? 8

There were 8 children in the ocean and on land altogether.

6. There were 2 beach balls, 2 shovels, 1 pail and 1 watering can. How many beach toys did the children have?

The children had 6 beach toys altogether.

Singapore Shape-Up: Level K

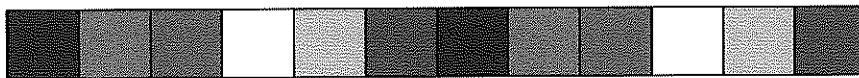
Thinking Guide and Solutions

Week 4 Lesson 2

Use the picture of a carnival to solve the following number stories. You will also write some of your own, too!



1. Take a careful look at the pattern on the base of the merry-go-round. Draw and color the pattern below, and continue it one more time.



2. Can you spy the following shapes?
 - a. 2 rectangles: ___door_____ and ___window_____
 - b. 2 circles: ___ball_____ and ___polka dots on dress_____
 - c. 1 triangle: ___flag_____

Singapore Shape-Up: Level K Thinking Guide and Solutions

3. Look at the duck booth.

How many small ducks are there? 4

How many large ducks are there? 1

How many large and small ducks are there altogether? 5

Write the number sentence. $4 + 1 = 5$

4. Look at the man with the balloons.

How many balloons is the man holding? 7

How many balloons is the man giving away? 1

How many balloons does the man have left? 6

Write the number sentence. $7 - 1 = 6$

5. Write your own number story below.

6. Write one more!

Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 4 Lesson 3

(In the following problems, students can use a counting on strategy.)

Use the picture below to solve and writing number stories.



1. Mason went to the grocery store. She needed 12 bottles of water.

How many bottles are there? 10

How many more bottles does she need? 12

2. There are 10 bottles on the shelves. There are 6 cartons on the shelves.

Are there more bottles or cartons? Bottles

How many more? 4

Write the number sentence. $10 - 6 = 4$

3. James needed to buy 4 jars of pickles.

How many jars would be left of the shelves? 1

Write the number sentence. $5 \text{ jars} - 4 \text{ jars} = 1 \text{ jar}$

Singapore Shape-Up: Level K Thinking Guide and Solutions

4. Carter had 1 bottle in his shopping cart. He wanted to have 9 bottles altogether.

How many more bottles does Carter need? $9 \text{ bottles} - 1 \text{ bottle} = 8$
bottles__

5. Use the picture of the grocery store to write your own number story.

6. How about another one.



7. And, one more.

Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 5 Lesson 1

(This series of problems reinforce counting on and the concept of one more. In addition, children will see taking away or one less. Provide concrete objects such as buttons or pennies should your child need to manipulate the objects in order to discover the answer.)

1. There is a blue bird and a yellow bird. How many birds are there in all?

 2 birds altogether

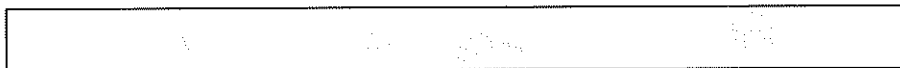
2. There is one pink flower and three blue flowers. How many flowers are there in all?

 4 flowers altogether

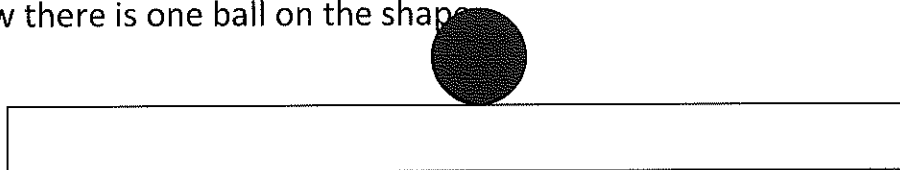
3. What would the addition sentence be for the answer to Question 2?

 1 + 3 = 4 flowers

4. There are no balls on this shape.



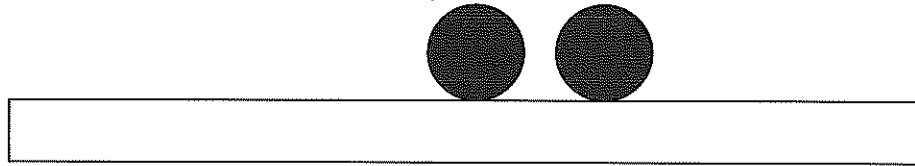
Now there is one ball on the shape.



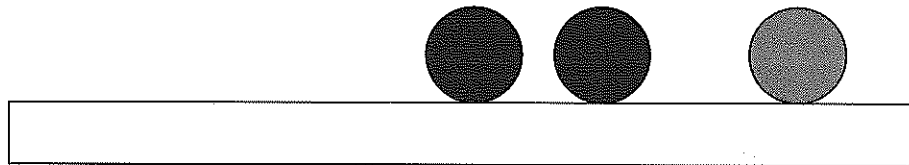
What would the addition sentence be? 0 + 1 = 1

Singapore Shape-Up: Level K
Thinking Guide and Solutions

5. There are two balls on the shape.



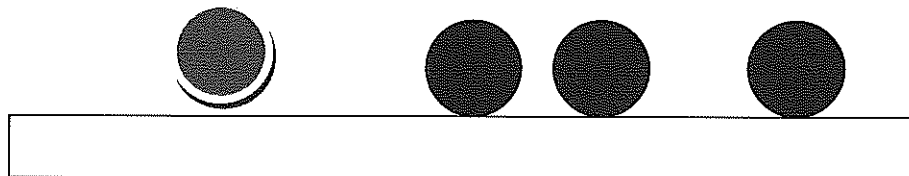
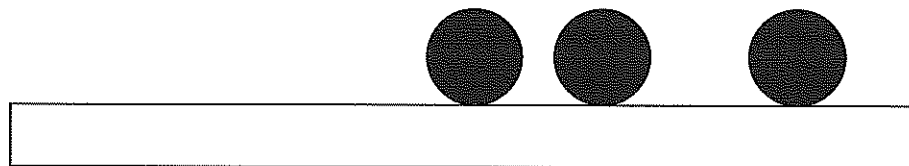
One more ball gets placed on the shape.



Now there are how many? 3

What is the addition sentence? 2 + 1 = 3

6. There were 3 balls on the shape and one more was added.



How there are how many balls? 4

What is the addition sentence? 3 + 1 = 4

Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 5, Lesson 2

1. Look at the birds. How many birds are there? 5



What if one bird flies away? How many birds would there be? 4

What if 2 flew away? 3

What if 3 flew away? 2

2. Look at the number of bees. How many bees are there? 8



What if one bee flies away? How many bees would there be? 7

What if 2 flew away? 6

What if 3 flew away? 5

3. Caroline and Jack carried 4 buckets of sand. Caroline carried 3 buckets of sand.

How many did Jack carry? 1

What number bond would you write? 3 + 1 = 4

Singapore Shape-Up: Level K Thinking Guide and Solutions

4. Caroline carried 4 buckets of sand. Jack carried 1. Draw a picture to show your thinking.

Who carried more buckets of sand? Caroline

How many more? 3 ($4 - 1 = 3$)



5. Caroline carried 5 buckets of sand. Jack carried 1. Draw a picture to show your thinking.

Who carried more buckets of sand? Caroline

How many more? 4 ($5 - 1 = 4$)

6. Caroline carried 5 buckets of sand. But she spilled 3 buckets. Draw a picture.



How many buckets of sand did Caroline have in the end? 2

What is the subtraction sentence?

5 - 3 = 2

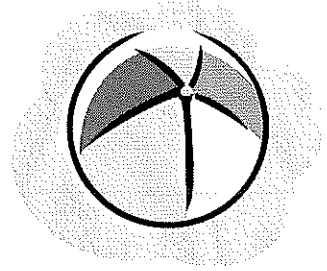
Singapore Shape-Up: Level K Thinking Guide and Solutions

7. Now Caroline is carrying 6 buckets of sand. She put 2 buckets in her left hand.

How many buckets did she put in her right hand? 4__

Draw a picture that shows this math problem below.

8. Caroline carried 7 buckets of sand and put them in a wagon. Jack carried one. Draw a picture.



Who carried more buckets of sand? __Caroline__

How many more? __6__

What is the subtraction sentence? __ $7 - 1 = 6$ __

9. Caroline made 3 trips to the beach. Each time she got 3 buckets of sand.

What is the total number of buckets of sand that Caroline collected?
__9__



10. Here's a challenge question! What if Caroline went to the beach 5 times?

How many buckets of sand did Caroline collect? __15__

Draw a picture to show how you got that answer.

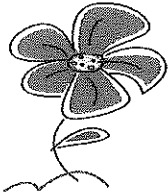


Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 5 Lesson 3

1. Do the family of addition and subtraction sentences for the yellow and blue flowers.

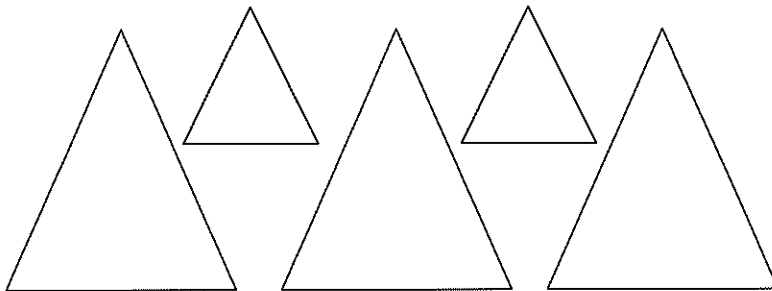


$$\underline{1} + \underline{3} = \underline{4} \text{ total flowers}$$

$$\underline{4} - \underline{1} = \underline{3} \text{ blue flowers}$$

$$\underline{4} - \underline{3} = \underline{1} \text{ yellow flowers}$$

2. Do the family of addition and subtraction sentences for the large and small triangles.



$$\underline{3} + \underline{2} = \underline{5} \text{ total triangles}$$

$$\underline{5} - \underline{3} = \underline{2} \text{ small triangles}$$

$$\underline{5} - \underline{2} = \underline{3} \text{ large triangles}$$

Singapore Shape-Up: Level K Thinking Guide and Solutions

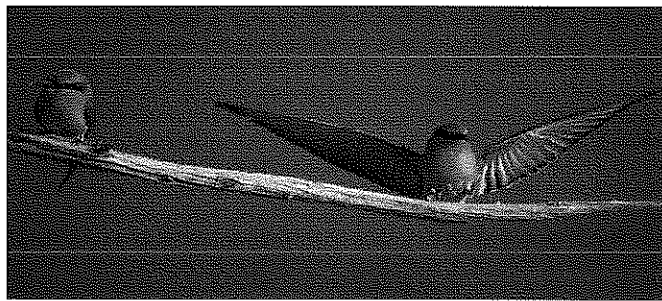
3. There are 2 birds sitting on this branch. What if 1 bird flew away?

How many birds would be sitting on the branch? 1

What is the subtraction sentence? 2 - 1 = 1

What if the other bird flew away? What would that subtraction sentence look like?

 1 - 1 = 0



Work these mental math problems. Write the addition sentence in the space provided.

0 birds on a branch. 1 bird came. 0 + 1 = 1

1 bird on a branch. 1 bird came. 1 + 1 = 2

2 birds on a branch. 1 bird came. 2 + 1 = 3

3 birds on a branch. 1 bird came. 3 + 1 = 4

4 birds on a branch. 1 bird came. 4 + 1 = 5

Singapore Shape-Up: Level K Thinking Guide and Solutions

5 birds on a branch. 1 bird came. $\underline{\quad} 5 + 1 = 6 \underline{\quad}$

6 birds on a branch. 1 bird came. $\underline{\quad} 6 + 1 = 7 \underline{\quad}$

7 birds on a branch. 1 bird came. $\underline{\quad} 7 + 1 = 8 \underline{\quad}$

7 birds on a branch. 2 flew away. $\underline{\quad} 7 - 2 = 5 \underline{\quad}$

5 birds on a branch. 2 flew away. $\underline{\quad} 5 - 2 = 3 \underline{\quad}$

3 birds on a branch. 2 flew away. $\underline{\quad} 3 - 2 = 1 \underline{\quad}$



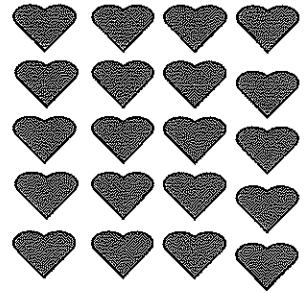
Singapore Shape-Up: Level K Thinking Guide and Solutions

Week 6, Lesson 1

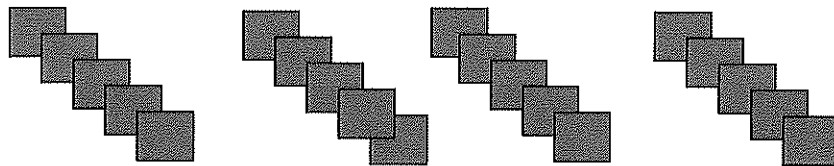
1. How many hearts are there? 20

What if there was one more heart? How many would there be?
 21

What is that addition sentence? $20 + 1 = 21$



2.



How many green squares are there? 20

What if there were 3 more squares? How many squares would there be?
 23

Write the addition sentence. $20 + 3 = 23$

Singapore Shape-Up: Level K

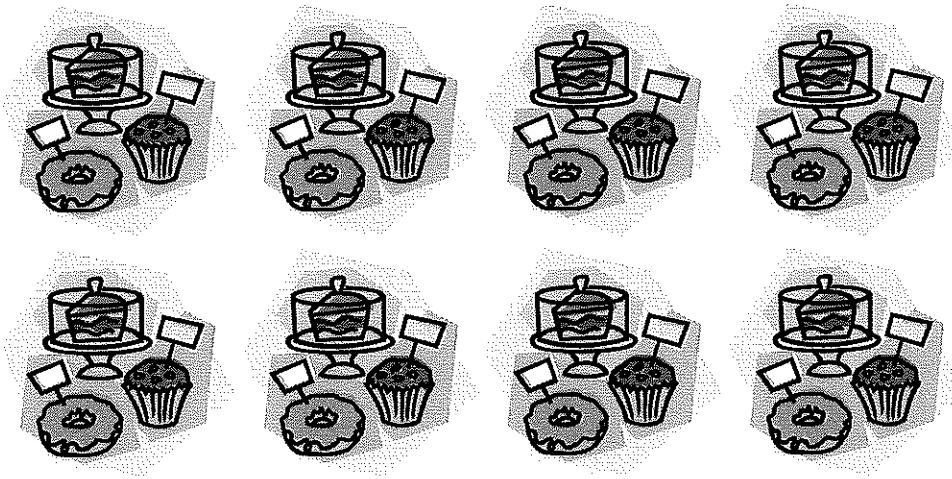
Thinking Guide and Solutions

3. How many ants are in one group? 2

Count by 2s to find out how many ants there are. 12



4. Count by 3s to find out how many pastries. 24



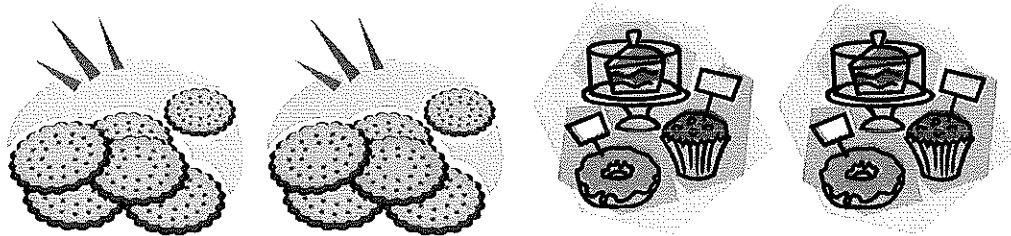
Cover 10 of the pastries. How many are left? 14

Singapore Shape-Up: Level K Thinking Guide and Solutions

5. How many cookies are there? 12

How many pastries are there? 6

How many cookies and pastries are there altogether? 18



6. If you ate 4 cookies and 2 pastries, how much would be left? 12

7. How many more pastries would you need to have the same number of cookies? 4

Singapore Shape-Up: Level K

Thinking Guide and Solutions

Week 6 Lesson 2

(To solve these number stories, encourage your child to draw pictures. It helps to shift children from the pictorial to the abstract stage of learning.)



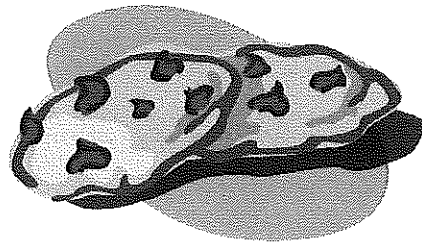
Solve these number stories.

1. There were 3 trees in Suzie's garden. Each tree had 3 oranges hanging on the branches. How many oranges did Suzie pick? $\underline{\quad} 3 + 3 + 3 = ? \underline{\quad}$

Suzie picked $\underline{\quad} 9 \underline{\quad}$ oranges altogether.

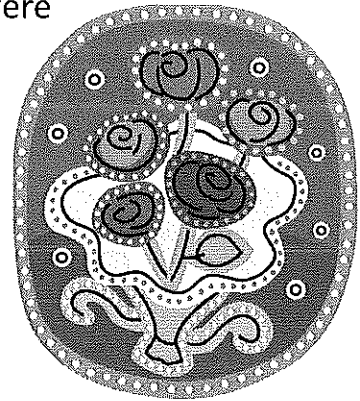
2. Alex was hungry for a snack. He looked in the cupboard and found some cookies. There were 6 Oreos, 3 chocolate chip, and 5 peanut butter cookies. How many cookies were there altogether? $\underline{\quad} 6 + 3 + 5 = ? \underline{\quad}$

There were $\underline{\quad} 14 \underline{\quad}$ cookies altogether.



Singapore Shape-Up: Level K Thinking Guide and Solutions

3. Libby was walking through the woods and saw some flowers. She counted 18 flowers. 11 of the flowers were yellow. The rest were purple. How many of the flowers were purple?
__18 - 11 = ?__



There were __7__ purple flowers.

4. Arden found some coins beneath the cushions of her couch. She found 4 nickels and 3 dimes. How many coins did she find? __4 + 3 = ?__

Arden found __7__ coins.

Bonus: How much money did she find?

$$(5 + 5 + 5 + 5) + (10 + 10 + 10) = ?$$

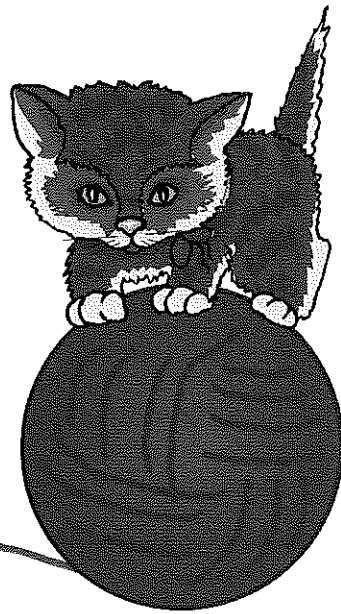


she

Arden found __50 cents__.

Singapore Shape-Up: Level K Thinking Guide and Solutions

5. Jonathan found a litter of kittens in his back yard. 8 were black and 7 were white.



Were there more black kittens or white kittens? Black

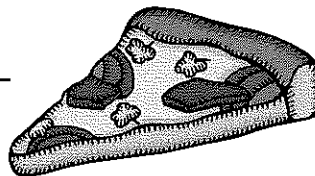
How many more? 1 more

6. Robert went to Disney World for 4 days. He rode the roller coaster 4 times each day he was there. How many times did he ride the roller coaster? $4 + 4 + 4 + 4 = ?$

7. Blair and Abi ordered a pizza for lunch. Blair ate 3 pieces and Abi ate 6.

Who ate more pizza, Blair or Abi? Abi

How much more? 3 pieces

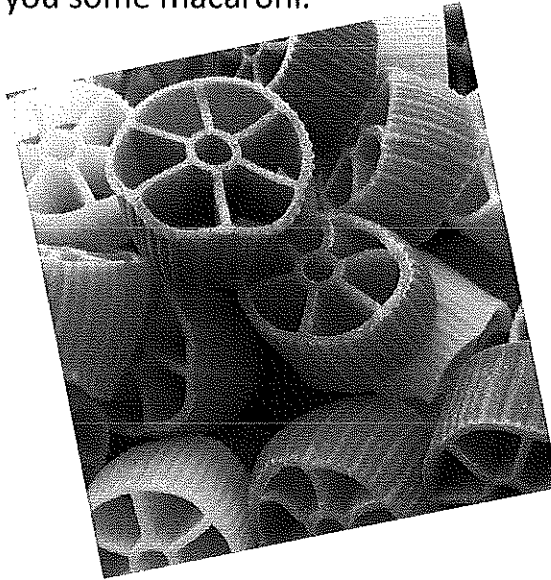


Singapore Shape-Up: Level K Thinking Guide and Solutions

Week 6 Lesson 3

(Answers will vary depending on the amount of macaroni used.)

You will need some macaroni to do these problems. Ask mom to get you some macaroni.



1. Have mom put out a hand full of one of the items above. Count by 5s to find out how many pieces of macaroni you have.
2. Now have mom give you two new, smaller piles of macaroni on the table.

Count by 2s to find out how many pieces of macaroni is in pile 1.

Count by 3s to find out how many pieces of macaroni is in pile 2.

Write the addition sentence. _____

How many pieces of macaroni are there altogether?

Singapore Shape-Up: Level K

Thinking Guide and Solutions

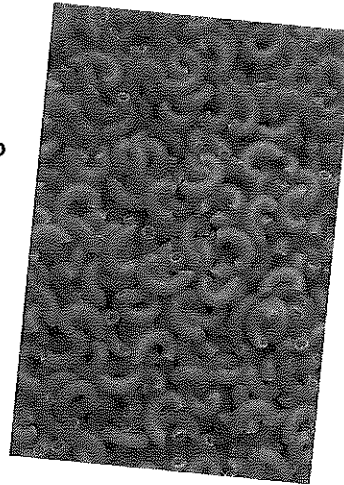
3. Using the information from problem 2, answer the following questions.

a. Which of the two piles had more macaroni?

b. Which had less?

c. Can you figure out how much less?

d. Write the subtraction sentence.



4. Count by 5s to 100.

5. Count by 2s to 100.



6. Count backwards by 2s from 20.

7. Count backwards by 5s from 50.

Singapore Shape-Up: Level K Thinking Guide and Solutions

8. Fill in the missing numbers.

31	32	33	34	35	36	37	38	39	40
41	42	34	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	58	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

9. Fill in the missing numbers.

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
51	52	53	54	55	56	57	58	59	60

***Congratulations! You've finished the
summer shape up!***

