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Building Number Sense

Learn About Number Sense

Thinking about the strategy

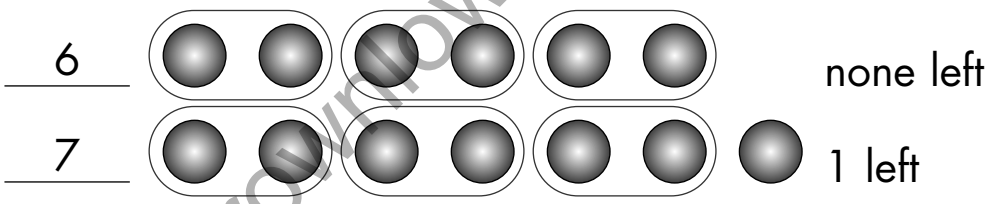
Numbers can be even or odd.

How can you tell if a number is even or odd?

Break the number into pairs. A pair is a group of 2. If nothing is left over, the number is even. If 1 is left, the number is odd.

Is 6 even or odd? Is 7 even or odd?

Rudy used counters to break 6 and 7 into pairs.
How did he know that 6 is an even number?
How did he know that 7 is an odd number?



Studying the problem

Read the problem and the notes beside it.

How many pencils does Andrew have?

How many pencils does Mary have?

How can Mary break each number into pairs?

Andrew has 5 pencils in his pencil box.
Is 5 an even number or an odd number?
Mary has 8 pencils in her pencil box.
Is 8 an even number or an odd number?

How can Mary use counters to solve the problem?

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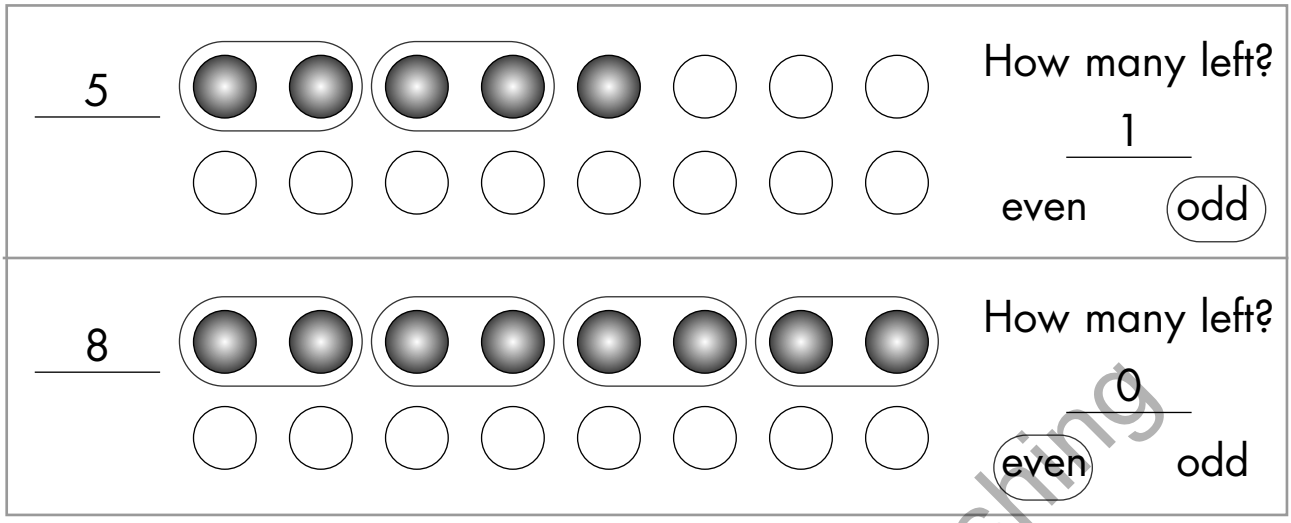
Studying the solution

Mary used these **counters** to worked out if 5 and 8 are even or odd.



Mary worked out that 5 is an odd number. She worked out that 8 is an even number.

Understanding the solution

Read what Mary wrote. Mary explains how she used counters to solve the problem.

I wrote 5 on the line. I coloured 5 counters. I circled pairs of counters that I coloured. I made 2 pairs, with 1 left over. I wrote 1 to show how many were left. I know 1 left means the number is odd. I circled 'odd' to show that 5 is an odd number.

Next, I wrote 8 on the line. I coloured 8 counters. I put circles around pairs of counters that I coloured. I made 4 pairs, with none left over. I wrote 0 to show how many were left. I know that if 0 is left, the number is even. I circled 'even' to show that 8 is an even number.

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Solve a Problem

Studying the problem

Read the problem. Think about how you could use counters to solve the problem.

Nate drew a picture of a leopard. The leopard is a big wild cat. Nate knows that leopards have spotted coats. Nate drew 12 spots on his leopard.

Nate drew a picture of a tiger. A tiger is a big wild cat too. Nate knows that tigers have striped coats. Nate drew 15 stripes on his tiger.

Is the number of spots even or odd?

Is the number of stripes even or odd?

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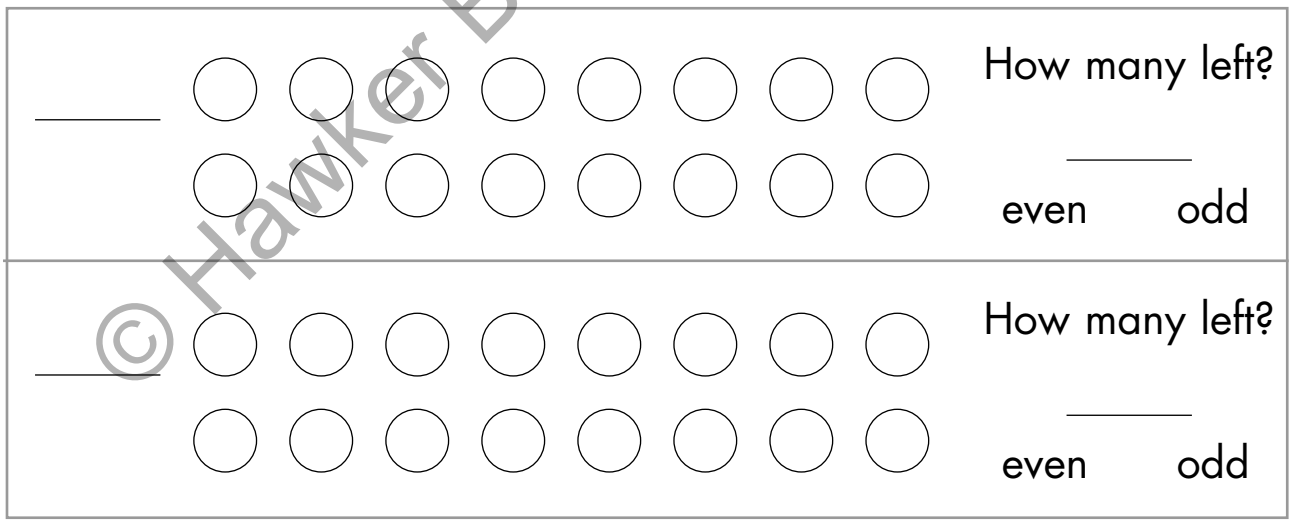
Finding the solution

Complete these counters. Use the information from the problem. Then write your answer below.



Answer: The number of spots is _____ and

the number of stripes is _____ .

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Explaining the solution

Fill in the blanks. Explain how you used counters to answer the problem on page 6.

I wrote 12 on the line. I coloured 12 counters. I circled pairs of counters that I coloured. I wrote 0 to show how many were left. I circled even to show that 12 is an even number.

Next, I wrote _____ on the line. I coloured _____ counters. I circled pairs of counters that I coloured. I wrote _____ to show how many were left. I circled _____ to show that _____ is an _____ number.

Applying the solution

Answer these questions. Use your counters on page 6.

1. What number makes 6 pairs with 0 left?

_____

2. What number makes 7 pairs with 1 left?

_____

3. Is the number before 12 even or odd?

_____

4. Is the number after 15 even or odd?

_____

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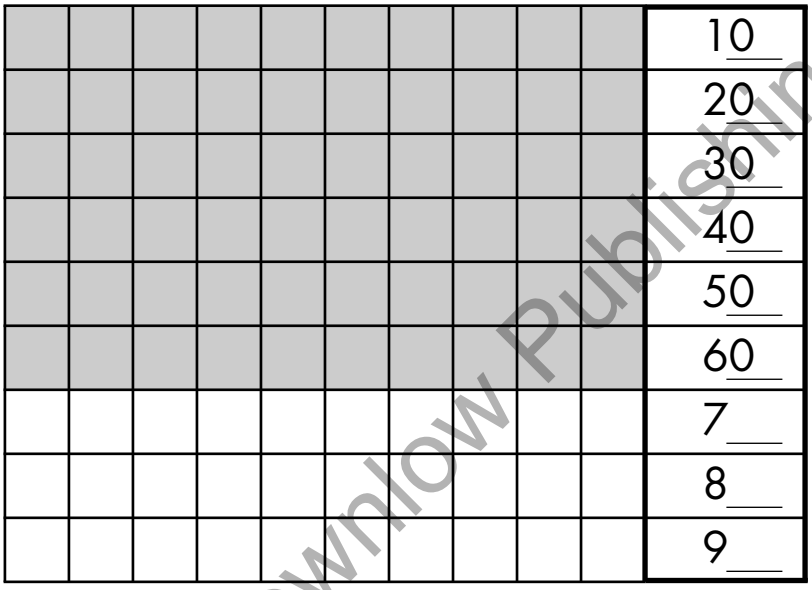
Learn More About Number Sense

Thinking about the strategy

When you count 10, 20, 30, 40, 50, 60, 70, 80, 90, you are counting by tens. There are 10 ones in 1 group of 10.

You can use **tens bars** to count groups of 10.

Earl has 6 stacks of coins. Each stack has 10 coins. How many coins does Earl have? Earl used these tens bars to find the total number of coins.



Answer: 60 coins

Understanding the solution

Read what Earl wrote. Earl explains how he used tens bars to solve the problem.

Each bar equals 1 group of 10 ones.

The number in front of the 0 shows how many groups of 10 are in the number.

I coloured 1 tens bar for each group of 10 coins. I coloured 6 bars. I added a 0 to the number next to each bar to show how many tens I had counted so far. I counted 6 tens, for a total of 60 coins.

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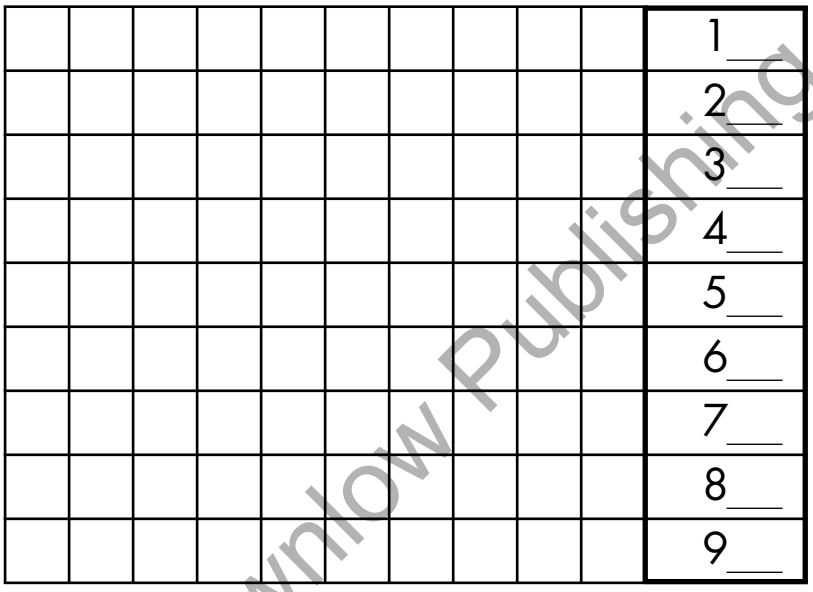
Solve a Problem

Finding the solution

Jamie helps in his mum's toy shop. Today, he put new toy trucks on a shelf. He placed the trucks in 8 rows. He put 10 trucks in each row. How many trucks did Jamie place on the shelf?

Complete these tens bars. Work out how many trucks are on the shelf. Then write your answer below.



Answer:

_____

Explaining the solution

Fill in the blanks. Explain how you used tens bars to answer the problem.

I coloured 1 tens bar for each group of 10 trucks. I coloured _____ bars. I added a _____ to the number next to each bar to show how many tens I had counted so far. I counted _____ tens, for a total of _____ trucks.

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