Understand Even and Odd Numbers

Think It Through

What are even and odd numbers?

You can break apart some numbers into groups of 2. Look at these 8 socks.

Think Sometimes when you make groups of 2, there is a leftover.
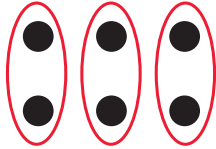
Look at these 7 shoes.

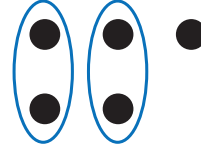✏️ Circle groups of 2.

✏️ How many shoes are NOT in a group of 2? _____

Think Make groups of 2 to tell if a number is even or odd.

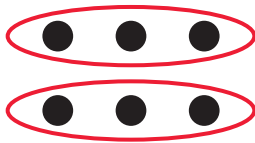A number is **even** if you make groups of 2 and have no leftovers.

A number is **odd** if you make groups of 2 and have 1 leftover.

There are no leftovers, so 6 is even.

There is 1 leftover, so 5 is odd.

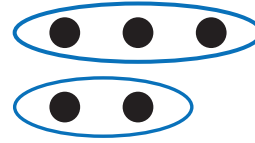**Think** Try making 2 equal groups to tell if a number is even or odd.

A number is **even** if you can make 2 equal groups.

A number is **odd** if you cannot make 2 equal groups.

Each group has the same number, so 6 is even.

Each group has a different number, so 5 is odd.

▶ **Reflect** Work with a partner.

1 Is 9 an even or odd number? Why?

_____

_____

Think About ▶ **Identifying Even and Odd Numbers**
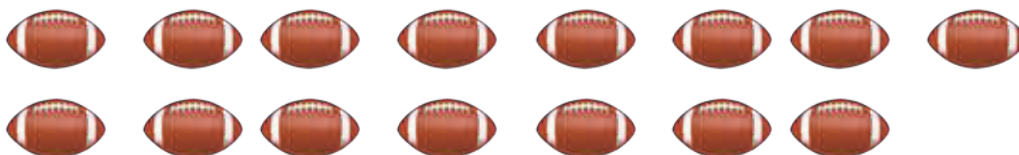
🔍 **Let's Explore the Idea** Tell if a number
is *even* or *odd*.

Circle groups of 2. Then tell if the number is *even* or *odd*.

2

15 is _____ .

3

12 is _____ .

**Show whether you can make 2 equal groups. Then tell if
the number is *even* or *odd*.**

4

14 is _____ .

5

11 is _____ .

6 Write a doubles fact for 8.

_____ + _____ = 8

7 Write a doubles + 1 fact for 9.

_____ + _____ + 1 = 9

8 Write these doubles or doubles + 1 facts.

_____ + _____ = 10   _____ + _____ + 1 = 7

_____ + _____ = 12   _____ + _____ + 1 = 15

9 Are sums of doubles odd or even numbers? Are sums of doubles + 1 odd or even numbers? Explain.

_____

_____

_____

▶ Try It Another Way Skip count by 2s to find even numbers.

You can skip count by 2s to find even numbers.

10 Skip count by 2s to finish this list. Stop at 20.

2, 4, 6, _____

11 Numbers on your list in Problem 10 are even. Numbers less than 20 that are not on your list are odd.
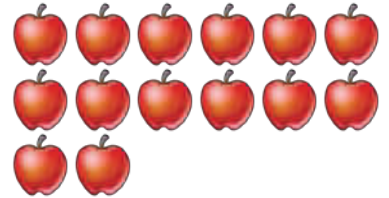
Circle the even numbers. Underline the odd numbers.

11   14   16   17

Connect ▸ **Ideas About Even and Odd Numbers**

Talk about these questions as a class. Then write your answers.

12 **Evaluate** Pat looks at this picture of 14 apples. He says that 14 is an odd number. Do you agree? Explain.

_____

_____

_____

13 **Analyze** Ms. Lane's class is in pairs. There are 9 pairs of students. There is also 1 student paired with Ms. Lane. How many students are in the class? Is the number even or odd? Explain.

_____

_____

_____

14 **Explain** Mimi says that when she adds doubles, the sum is always even. It doesn't matter if the doubles are odd or even numbers. Do you agree? Explain.

_____

_____

_____

Apply ▶ **Ideas About Even and Odd Numbers**

Put It Together **Use what you have learned to complete this task.**

15 Use this table to answer the questions.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Part A Color squares with odd numbers red. Color squares with even numbers blue. What patterns do you see in the numbers?

_____

_____

Part B Look at 15. Is the ones digit odd or even? Is 15 odd or even?

_____

Part C Look at 16. Is the ones digit odd or even? Is 16 odd or even?

_____

Part D Amy says that if a two-digit number has an even number in the ones place, the number is also even. Is she correct? Why or why not?

_____

_____

_____