

KEY CONCEPT OVERVIEW

During the next week, our math class will explore the meanings of **even** and **odd numbers**. Students will make pairs of up to 20 objects and learn that when objects can be paired with none remaining, the total number is even. They will learn that when starting from an even number, a number that occurs when skip-counting by twos is even. They will also learn that the double of any number is even, as are numbers whose last or only digit is 0, 2, 4, 6, or 8. Students will learn that any whole number that is not even is an odd number.

You can expect to see homework that asks your child to do the following:

- Draw groups of doubles and write the matching addition equation. For example, draw two groups of four and write the doubles equation, $4 + 4 = 8$.
- Pair objects and skip-count the objects by twos to determine whether the total number of objects is even.
- Use rectangular arrays to investigate even and odd numbers.
- Add various combinations of even and odd numbers (even + even, even + odd, and odd + odd) to discover whether the sum is odd or even in each case.

SAMPLE PROBLEM (From Lesson 20)

Is the **bold** number even or odd? Circle the answer, and explain how you know.

39 even/odd	Explanation: <i>This number does not have 0, 2, 4, 6, or 8 in the ones place. I know that 40 is even, so $40 - 1$ has to be odd.</i>
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Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Invite your child to notice different items around the home that appear in twos (e.g., socks, shoes, earrings).
- Give your child up to 20 counters, such as pennies or beans. Invite her to arrange a given number of counters (e.g., 7 counters) in as many pairs as possible to determine whether the total number is even or odd. Ask your child to share her reasoning. For example, “The number 7 is not even because there’s a penny left over when I make pairs.”
- Challenge your child to apply what he has learned to determine whether larger numbers are even or odd. For example, if you ask, “Can you prove that 73 is odd?,” your child may respond, “I know that 73 is odd because it doesn’t end in 0, 2, 4, 6, or 8.”

TERMS

Even number: A whole number whose last or only digit is 0, 2, 4, 6, or 8.

Odd number: A whole number whose last or only digit is 1, 3, 5, 7, or 9.