

Even or Odd?

Sort whole numbers by what happens when you make pairs.

MA.3.AR.3.1 "Determine and explain whether a whole number from 1 to 1,000 is even or odd."

NAME _____

DATE _____

EVEN NUMBERS

An even number can be split into two equal groups with none left over. Its ones digit is 0, 2, 4, 6, or 8.

312

ODD NUMBERS

An odd number has one left over after making two equal groups. Its ones digit is 1, 3, 5, 7, or 9.

475

1 SORT

8 items

In Part 1, circle EVEN or ODD for each number, then in Part 2, choose two items and explain how you knew.

1. 246

EVEN

ODD

2. 58

EVEN

ODD

3. 719

EVEN

ODD

4. 1,000

EVEN

ODD

5. 93

EVEN

ODD

6. 407

EVEN

ODD

7. 624

EVEN

ODD

8. 86

EVEN

ODD

2 PROVE IT Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3 MAKE YOUR OWN One of each

Part 3: Write one new even number and one new odd number from 1 to 1,000.

EVEN _____

ODD _____

CHALLENGE

Write three consecutive whole numbers from 1 to 1,000 with an even number in the middle. Explain how you know the middle number is even.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	246	EVEN	The ones digit is 6, so it is even.
2	58	EVEN	The ones digit is 8, so it is even.
3	719	ODD	The ones digit is 9, so it is odd.
4	1,000	EVEN	The ones digit is 0, so it is even.
5	93	ODD	The ones digit is 3, so it is odd.
6	407	ODD	The ones digit is 7, so it is odd.
7	624	EVEN	The ones digit is 4, so it is even.
8	86	EVEN	The ones digit is 6, so it is even.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **EVEN:** 154
- **ODD:** 681

Challenge: 457, 458, 459. The middle number, 458, ends in 8, so it is even.

For Part 2, accept explanations based on making equal pairs with none left over for even numbers or one left over for odd numbers. Students may also correctly use the ones-digit rule.