

Answer Key—Odd Man Out

1. For each class, count out the number of snap cubes that will show how many students are in the class. Create two towers with the cubes and decide if the number is even or odd.

CLASS	NUMBER OF STUDENTS	IS THE NUMBER EVEN OR ODD?
Ms. Brown	15	[odd]
Mr. Little	14	[even]
Ms. Frank	11	[odd]
Ms. Baker	18	[even]
Mr. Espinosa	16	[even]

2. Which class can be combined with Ms. Brown's class so the total number is even? Explain your answer.

Ms. Frank's class. If 11 students in Ms. Frank's class pair with 15 students from Mr. Brown's class, the 2 students left over can form a pair, so there is no odd man out.

3. If Ms. Baker's and Mr. Espinosa's classes combined, would the total number be odd or even? Explain your answer.

Even. Because 18 and 16 are both even numbers, the sum can be made with pairs, so every student has a partner and there will be no odd man out.

4. If Mr. Little's and Ms. Frank's classes combined, would the total number be odd or even? Explain your answer.

Odd. Because 14 is even and 11 is odd, one student would be without a partner if the students paired up. There would be one odd man out.

5. All of the numbers in the chart have a 1 in the tens place. The number 1 is odd. Why aren't all of the numbers odd?

It is the digit in the ones place that determines whether a number is even or odd.

6. Find out how many classes in your school have an odd number of students and how many have an even number of students. If all the students in the school took dance lessons and needed a partner, would there be an odd man out? Explain how you got your answer.

Answers will vary. Students should understand that if the total number of students is even, there will be no odd man out. If the total number of students is odd, then there will be an odd man out.