

## Mathletes Problem of the Week #4

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### Probably Even

Choose four distinct numbers from the integers 1, 2, 3, 4, 5, 6, and 7 and add them together. Is the sum odd or even?

$$1 + 2 + 3 + 4 \quad \text{Even Sum} \quad \img alt="thumbs up icon" data-bbox="715 225 755 255"/>$$

$$1 + 2 + 3 + 5 \quad \text{Odd Sum} \quad \img alt="thumbs down icon" data-bbox="715 280 755 310"/>$$

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- How many different selections are possible so that the sum is even?
- What if you chose three numbers? Are there more ways to make even sums now? fewer? Are they the same? Explain.

**Solutions & Explanations:** (Solve one or try both. Record your solutions below and on the back. Attach more paper if you need to!)

Name \_\_\_\_\_ Class \_\_\_\_\_

(First and last name, please!)

Solutions due: November 2<sup>nd</sup>