- For the nonzero numbers a, b, and c, define

$$\clubsuit(a, b, c) = \frac{abc}{a + b + c}.$$

Find $\clubsuit(2, 4, 6)$.

(A) 1 **(B)** 2 **(C)** 4 **(D)** 6 **(E)** 24

2002 AMC 10 B, Number #2— "Follow the directions!"

- **Solution (C)** We have

$$\clubsuit(2, 4, 6) = \frac{2 \cdot 4 \cdot 6}{2 + 4 + 6} = \frac{48}{12} = 4.$$

Difficulty: Easy

NCTM Standard: Algebra Standard for Grades 9–12: Understand and perform transformations such as arithmetically combining, composing, and inverting commonly used functions.

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Algebra > Algebraic Operations > General Algebraic Operations