Substituting with Strange Symbols on the ISEE
Middle and Upper Level

LESSON GOAL: Learn how to substitute numbers in problems with unusual notation.

ISEE Question: If h ◢ j = 2h – 3j, what does 3 ◢ 2 = ?

    (A) 0
    (B) 2
    (C) 3
    (D) 6

Solution: Don't panic. That black triangle symbol you have never seen before doesn't mean there's math you don't know. It is a *strange symbol* invented for this specific problem, and its meaning is given in the problem.

STEP 1: Analyze the *rule* for the strange symbol: "h ◢ j = 2h – 3j" says that you take the number to the left of the triangle (called "h"), you double it ("2h"), and then you subtract three times the number to the right of the triangle (" – 3j").

STEP 2: *Plug in* the given numbers into the equation by copying it exactly below the original:

    h ◢ j = 2h – 3j
    3 ◢ 2 = 2(3) – 3(2)

Helpful Tip: Always use parentheses when plugging in numbers to make sure you don't accidentally mix up the sign of the number or the operation.

STEP 3: Solve the new equation, which should now have only numbers: 3 ◢ 2 = 2(3) – 3(2) = 6 – 6 = 0

The correct answer is A).

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