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**A function machine.**

Math. Teach. Inc. Micromath 2008, No. 211, 3-6 (2008).

Summary: In this article, the author describes a lesson he observed involving a function machine. This function machine was a box with a slot at the top of one side and a large cut-out hole at the bottom of the opposite side. A card with a number written on it (the input) was pushed into the slot and the teacher put their hand through the hole of the other side to pull out a card with the output number. As the author watched this being used, the students in the class were amazed as a card with the number four was put into the function machine and a card with the number six was taken out at the other side. The teacher then asked the students to determine the mathematical rule, which in this case was "add two." This led him to consider an alternative lesson in which the teacher would put in a card with the number four, pull out a card with the number six, and again ask the students to determine the rule. In this case however, rather than "add two," the rule may be "double the first number and then subtract two." This alternative lesson illustrates the multiple functions that may satisfy the initial situation of turning an input of four into an output of six, thereby helping students develop their mathematical awareness. (Contains 5 figures.) (ERIC)

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